## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## **FORM 20-F**

# ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended: **December 31, 2001**Commission file number: **000-26030** 

## COMPANHIA VALE DO RIO DOCE

## VALE OVERSEAS LIMITED

(Exact name of Registrant as specified in its charter)

(Exact name of Registrant as specified in its charter)

## Valley of the Rio Doce Company

(Translation of Registrant's name into English)

### Federative Republic of Brazil

**Cayman Islands** 

(Jurisdiction of incorporation or organization)

## Avenida Graça Aranha, No. 26 20005-900 Rio de Janeiro, RJ, Brazil

(Address of principal executive offices)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of Each Class

Preferred class A shares of CVRD, no par value per share

American depositary shares (as evidenced by American depositary receipts) each representing one preferred class A share of CVRD

Common shares of CVRD, no par value per share

American depositary shares (as evidenced by American depositary receipts) each representing one common share of CVRD

Name of Each Exchange on Which Registered New York Stock Exchange\*

New York Stock Exchange New York Stock Exchange\*

New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

The number of issued shares of each class of stock of CVRD as of December 31, 2001 was:

245,267,973 common shares, no par value per share 138,575,821 preferred class A shares, no par value per share 1 golden share, no par value per share

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

No L

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  $\square$  Item 18  $\square$ .

Please send copies of notices and communications from the Securities and Exchange Commission to:

Joseph A. Hall Davis Polk & Wardwell 450 Lexington Avenue New York, NY 10017

<sup>\*</sup> Shares are not listed for trading, but only in connection with the registration of American depositary shares pursuant to the requirements of the New York Stock Exchange.

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## **Mining Terms**

Alumina	Aluminum oxide. It is extracted from bauxite in a chemical refining process and is the principal raw material in the electro-chemical process from which aluminum is produced.
Bauxite	A rock composed primarily of hydrated aluminum oxides. It is the principal ore of alumina, the raw material from which aluminum is made.
Beneficiation	The process of separating, concentrating and classifying ore by particle size or some other characteristic (e.g., specific gravity, magnetic susceptibility, surface chemistry, etc.) in order to obtain the mineral or metal of interest.
CIF	Cost, insurance and freight. It indicates that the seller pays for shipping, insurance, and all other costs associated with transportation of the commodity to its destination.
CIL	Carbon-in-Leach. A method of recovering gold in solution from slurry streams by contacting activated carbon with the pulp during the leaching process within agitated vessels and separating loaded carbon from the pulp by screening.
CIP	Carbon-in-Pulp. A method of recovering gold and silver extracted from pregnant cyanide solutions by absorbing the precious metals to granules of activated carbon, which are typically ground up coconut shells.
Concentration	Physical, chemical or biological process to increase the grade of the metal or mineral of interest.
DR	Direct reduction. DR iron ore pellets are used by steelmakers that employ minimill technology.
DWT	Deadweight ton. The measurement unit of a vessel's capacity for cargo, fuel oil, stores and crew, measured in metric tons of 1,000 kg. A vessel's total deadweight is the total weight the vessel can carry when loaded to a particular load line.
Fines	Refers to iron ore with particles in the range of 0.10 mm to 6.35 mm diameter.
FOB	Free on Board. It indicates that the purchaser pays for shipping, insurance, and all the other costs associated with transportation of the commodity to its destination.
Grade	The proportion of metal or mineral present in ore or any other host material.
HL	Heap Leaching. A low cost method of extracting metals such as gold and copper from low-grade ores. It consists of building a

the metal is recovered by precipitation and smelting or carbon absorption, stripping and electrowinning methods. Kaolin.... A fine white aluminum silicate clay used as a coating agent, filler, extender and absorbent in the paper, ceramics and pharmaceutical industries. Lump ore ..... Iron ore or manganese ore with the coarsest particle size in the range of 6.35 mm to 75 mm diameter, but varying slightly between different mines and ores. A hard brittle metallic element found primarily in the minerals Manganese ..... pyrolusite, hausmannite and manganate. Mineral deposit(s) or mineralized material(s) Refers to a mineralized body which has been intersected by a sufficient number of closely-spaced drill holes and/or underground/surface samples to support sufficient tonnage and grade of metal(s) or mineral(s) of interest to warrant further exploration-development work. The deposit does not qualify as an ore body until it can be legally and economically extracted at the time of ore reserve determination. Open pit mining ..... The extraction method by which surface or barren rock is removed so that ore may be removed using power shovels, front-end loaders, hydraulic excavators, draglines, etc. Oxides ..... Compounds of oxygen with another element. For example, magnetite (Fe3O4) is an oxide mineral formed by the chemical union of iron with oxygen. Pellet feed..... Fine (0.10 mm to 6.35 mm) and ultra-fine (less than 0.10 mm) iron ore particles generated by the mining, grading, handling and transporting of iron ore, with no practical direct application in the steel industry, unless the material is aggregated into pellets through an agglomeration process. Pellets Balls of agglomerated fine and ultra-fine iron ore particles of a size and quality suitable for particular steelmaking processes. Our pellets range in size from 8 mm to 18 mm. A potassium chloride compound, chiefly KCl, used in industry Potash..... and agriculture. Reserves for which quantity and grade and/or quality are Probable (indicated) reserves..... computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume

heap of ore and applying a solution (lixiviant) which dissolves the metal to produce a pregnant solution (leachate) from which

continuity between points of observation.

Proven (measured) reserves	Reserves for which (1) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; (2) grade and/or quality are computed from the results of detailed sampling; and (3) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.
Recoverable reserve	That portion of interest in the ore that can be physically recovered through processing.
Reserve	Refers to that part of a mineral deposit which could be economically and legally extracted or produced at the time of the reserve determination.
Run-of-mine	Ore in its natural (unprocessed) state, as mined, without having been crushed.
Seaborne market	The market for iron ore products that are shipped in vessels which have a capacity in excess of 50,000 DWT.
Sinter feed	Iron or manganese ore suitable for sintering.
Sintering	Refers to the agglomeration of small particles into a coherent mass by heating without melting.
S/P	Stockpile. Refers to ore or materials accumulated or piled at the surface for future use.
Sulfides	Compounds of sulphur with more than one element and metallic sulfides (such as galena, PbS, and chalcopyrite, CuFeS2) which occur as minerals.

#### **Presentation of Financial Information**

We have prepared our financial statements appearing in this annual report in accordance with generally accepted accounting principles in the United States (U.S. GAAP), which differ in certain respects from accounting principles in Brazil (Brazilian GAAP). Brazilian GAAP is determined by the requirements of Law No. 6,404, dated December 15, 1976, as amended (the Brazilian Corporation Law), and the rules and regulations of the *Comissão de Valores Mobiliários*, or CVM, the Brazilian Securities Commission. We publish financial statements in Brazil, known as the Brazilian Corporation Law financial statements, and prepare them in accordance with Brazilian GAAP. We use our Brazilian Corporation Law financial statements for:

- reports to Brazilian shareholders,
- filings with the CVM,
- determination of dividend payments, and
- determination of tax liability.

Our financial statements and the other financial information appearing in this annual report have been remeasured (translated) from Brazilian *reais* to U.S. dollars on the basis explained in note 2(a) to our financial statements unless we indicate otherwise.

Some of the figures included in this annual report have been rounded.

References to "real," "reais" or "R\$" are to Brazilian reais (plural) and to the Brazilian real (singular), the official currency of Brazil; and references to "U.S. dollars," "dollars," are to United States dollars.

Unless otherwise specified, metric units have been used, e.g. tons refer to metric tons.

References to "CVRD Group," "us" or "we" are to CVRD, its consolidated subsidiaries and its joint ventures and other affiliated companies. References to "Vale Overseas" are to Vale Overseas Limited. References to "affiliated companies" are to companies in which Companhia Vale do Rio Doce has a minority investment, and exclude controlled affiliates that are consolidated for financial reporting purposes.

References to our "ADSs" or "American depositary shares" include both our common American depositary shares (our common ADSs), each of which represents one common share of CVRD, and our preferred American depositary shares (our preferred ADSs), each of which represents one preferred class A share of CVRD. American depositary shares are represented by American depositary receipts (ADRs) issued by JPMorgan Chase Bank, as depositary.

#### **Presentation of Information Concerning Reserves**

The estimates of proven and probable reserves at mines within the CVRD Group and the estimates of mine life, as of December 31, 2001, included in this annual report have been calculated according to the technical definitions required by the U.S. Securities and Exchange Commission, as described in *Mining Terms*. We derived estimates of mine life described in this annual report from such reserve estimates. See *Item 3.D. Risk Factors—Risks Relating to the Mining Industry*.

The National Mineral Research Department, *Departamento Nacional de Pesquisa Mineral*, or DNPM, compiles domestic and foreign mining reserve estimates using criteria which may differ from technical definitions required by the Commission. We have adjusted ore reserve estimates for extraction losses and metallurgical recoveries during extraction.

#### **Forward Looking Information**

This annual report contains statements which constitute forward looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Many of the forward looking statements contained in this annual report can be identified by the use of forward-looking words such as "anticipate", "believe", "could", "expect", "should", "plan", "estimate", and "potential", among others. Those statements appear in a number of places in this annual report and include statements regarding our intent, belief or current expectations with respect to:

- our direction and future operation,
- the implementation of our principal operating strategies, including our potential participation in privatization, acquisition or joint venture transactions or other investment opportunities,
  - our divestiture plans,
  - the implementation of our financing strategy and capital expenditure plans,
  - the exploration of mineral reserves and development of mining facilities,
  - depletion and exhaustion of mines and mineral reserves,
  - the declaration or payment of dividends,
  - other factors or trends affecting our financial condition or results of operations, and
  - the factors discussed under *Item 3.D. Risk Factors* beginning on page 7.

These risks and uncertainties include factors: relating to the Brazilian economy and securities markets, which exhibit volatility and can be adversely affected by developments in other countries; relating to the iron ore business and its dependence on the global steel industry, which is cyclical in nature; and relating to the highly competitive industries in which we operate. For additional information on factors that could cause our actual results to differ from expectations reflected in forward-looking statements, please see *Item 3. Key Information*, and our reports filed with the CVM and the U.S. Securities and Exchange Commission. We caution that any such forward looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those in the forward looking statements as a result of these various factors.

## PART I

## Item 1. Identity of Directors, Senior Management and Advisers

## 1.A. Directors and Senior Management

See Item 6.A., 6.B. and 6.C. Directors and Senior Management, Compensation and Board Practices—Board of Directors and—Executive Officers.

#### 1.B. Advisers

Davis Polk & Wardwell acts as our U.S. legal adviser. The firm's address is:

Davis Polk & Wardwell 450 Lexington Avenue New York, NY 10017 U.S.A.

#### 1.C. Auditors

PricewaterhouseCoopers Auditores Independentes acts as our independent public accountants. The firm's address is:

PricewaterhouseCoopers Auditores Independentes Rua da Candelária 65 15th Floor Rio de Janeiro, Brazil

PricewaterhouseCoopers is a member of the *Instituto Brasileiro de Contadores*, or IBRACON, the Brazilian Institute of Accountants (registration no. CRC-SP-160-S-RJ).

We have retained AMEC Engineering and Construction Services, or AMEC (formerly MRDI), to audit and verify some of our estimates of proven and probable reserves and mine life as of December 31, 2001. The firm's address is:

AMEC Engineering and Construction Services 2001 W. Camelback Road, Suite 300 Phoenix, AZ 85015 U.S.A.

Unless specifically stated, our reserve estimates have not been audited by AMEC.

## Item 2. Offer Statistics and Expected Timetable

Not applicable.

## **Item 3.** Key Information

## 3.A.1-2. Selected Financial Data

The table below presents selected consolidated financial information as of and for the periods indicated. You should read this information together with our consolidated financial statements appearing in this annual report.

	For the Year Ended December 31,				
	1997	1998	1999	2000	2001
		-	(in millions of U	S\$)	
Statement of Income Data					
Net operating revenues	US\$3,748	US\$3,553	US\$3,076	US\$3,935	US\$3,990
Cost of products and services	(2,653)	(2,272)	(1,806)	(2,429)	(2,327)
Selling, general and administrative					
expenses	(207)	(171)	(138)	(225)	(241)
Research and development	(51)	(48)	(27)	(48)	(43)
Employee profit sharing plan	(46)	(29)	(24)	(29)	(38)
Restructuring costs	(87)	(9)	_	_	_
Other income (expenses)	(79)	(175)	(165)	(278)	(412)
Operating income	625	849	916	926	929
Non-operating income (expenses):					
Financial income (expenses)	(3)	151	(33)	(107)	(200)
Foreign exchange and monetary gain/					
Translation gain (loss)	7	(108)	(213)	(142)	(393)
Gain on sale of investments	_	_		54	784
	4	43	(246)	(195)	191
Income before income taxes, equity results,		-			
minority interests and extraordinary					
items	629	892	670	731	1,120
Income taxes benefit (charge)	(32)	_	(33)	32	218
Equity in results of affiliates and joint					
ventures	155	80	41	260	(49)
Change in provision for losses and					
write-downs on equity investments	(59)	(273)	(268)	62	(4)
Minority interests	(2)	(1)	2	1	2
Extraordinary items (net of taxes)(1)	(372)				
Net income	US\$319	US\$698	US\$412	US\$1,086	US\$1,287
Total cash distributions	US\$302	US\$607	US\$452	US\$246	US\$1,066

<sup>(1)</sup> Extraordinary items in 1997 relate to transactions in connection with the first step of our privatization.

_	For the Year Ended December 31,				
_	1997	1998	1999	2000	2001
	(in US\$ except recorded dividends and interest on shareholders' equity pe and share numbers)				
Per Share Data					
Basic earnings per common and preferred share(2):					
Income before extraordinary items	US\$1.06	US\$1.80	US\$1.07	US\$2.82	US\$3.34
Extraordinary items	(0.96)	_	_	_	_
Net income	US\$0.10	US\$1.80	US\$1.07	US\$2.82	US\$3.34
Recorded dividends and interest on shareholders' equity per share in US\$(3)	US\$1.20	US\$1.58	US\$1.28	US\$1.70	US\$1.99
Recorded dividends and interest on shareholders' equity per share in					
Brazilian reais(3)	R\$1.33	R\$1.86	R\$2.28	R\$3.33	R\$4.61
Weighted average number of shares outstanding (in thousands):					
Common shares(2)	249,983	249,983	249,983	249,983	249,864
Preferred shares(2)	138,563	137,965	134,917	134,917	135,042
Total	388,546	387,948	384,900	384,900	384,906

At December 31,				
1997	1998	1999	2000	2001
	(i	in millions of US\$	)	
\$2,603	US \$2,845	US \$2,490	US \$2,502	US\$2,638
5,557	5,261	3,943	3,955	3,813
1,666	1,557	1,203	1,795	1,218
1,791	1,385	1,052	1,543	1,853
11,617	11,048	8,688	9,795	9,522
2,057	2,030	2,072	2,136	1,921
1,157	1,169	601	1,061	786
1,428	1,389	1,321	2,020	2,170
69	68	3	9	5
4,711	4,656	3,997	5,226	4,882
1,288	1,740	1,927	1,927	2,211
498	498	498	498	498
5,120	4,154	2,266	2,144	1,931
\$6,906	US \$6,392	US \$4,691	US\$ 4,569	US\$4,640
\$11,617	US\$11,048	US \$8,688	US\$ 9,795	US\$9,522
	\$2,603 5,557 1,666 1,791 11,617 2,057 1,157 1,428 69 4,711 1,288 498 5,120 \$6,906	\$2,603 US \$2,845 5,557 5,261 1,666 1,557 1,791 1,385 11,617 11,048 2,057 2,030 1,157 1,169 1,428 1,389 69 68 4,711 4,656 1,288 1,740 498 498 5,120 4,154 \$6,906 US \$6,392	\$2,603 US \$2,845 US \$2,490 5,557 5,261 3,943  1,666 1,557 1,203 1,791 1,385 1,052 11,617 11,048 8,688  2,057 2,030 2,072 1,157 1,169 601 1,428 1,389 1,321 69 68 3 4,711 4,656 3,997  1,288 1,740 1,927 498 498 498 5,120 4,154 2,266 \$6,906 US \$6,392 US \$4,691	1997         1998         1999         2000           (in millions of US\$)           \$2,603         US \$2,845         US \$2,490         US \$2,502           5,557         5,261         3,943         3,955           1,666         1,557         1,203         1,795           1,791         1,385         1,052         1,543           11,617         11,048         8,688         9,795           2,057         2,030         2,072         2,136           1,157         1,169         601         1,061           1,428         1,389         1,321         2,020           69         68         3         9           4,711         4,656         3,997         5,226           1,288         1,740         1,927         1,927           498         498         498           5,120         4,154         2,266         2,144           \$6,906         US \$6,392         US \$4,691         US\$ 4,569

<sup>(2)</sup> Each common American depositary share represents one common share and each preferred American depositary share represents one preferred class A share.

<sup>(4)</sup> Excludes current portion. At December 31, 2001, we had extended guarantees for borrowings of joint ventures and affiliated companies in an aggregate amount of US\$702 million. These contingent liabilities do not appear on the face of our consolidated balance sheets, but appear in note 15(a) to our consolidated financial statements.

		A	At December 31,				
_	1997	1998	1999	2000	2001		
_	(in millions of US\$)						
Additional Data							
Ratio of earnings to fixed charges(1)	3.40x	4.28x	3.66x	3.43x	4.28x		

<sup>(1)</sup> To calculate the ratio of earnings to fixed charges, we calculate earnings by adding interest before income taxes, equity results and minority interests, fixed charges, amortization of capitalized interest and distributed income of equity investments less capitalized interest. Fixed charges represent the total of capitalized interest, financial expenses and the preferred stock guaranteed dividend.

## 3.A.3. Exchange Rates

There are two principal foreign exchange markets in Brazil:

- the commercial rate exchange market, and
- the floating rate exchange market.

Most trade and financial foreign-exchange transactions are carried out on the commercial rate exchange market. These transactions include the purchase or sale of shares or the payment of dividends or interest with respect to shares.

<sup>(3)</sup> Since 1997, all distributions have been in the form of interest on shareholders' equity.

Foreign currencies may only be purchased through a Brazilian bank authorized to operate in these markets. In both markets, rates are freely negotiated but may be influenced by Central Bank intervention. In 1999, the Central Bank unified the exchange positions of the Brazilian banks in the floating rate exchange market and commercial exchange market, which led to a convergence in the pricing and liquidity of both markets. Since February 1, 1999, the floating market rate has been the same as the commercial market rate. However, there is no guarantee that these rates will continue to be the same in the future. Despite the convergence in the pricing and liquidity of both markets, each market continues to be regulated differently.

From its introduction on July 1, 1994 through March 1995, the *real* appreciated against the U.S. dollar. In 1995, the Central Bank announced that it would intervene in the market and buy or sell U.S. dollars, establishing a band in which the exchange rate between the *real* and the U.S. dollar could fluctuate. This policy resulted in a gradual devaluation of the *real* relative to the U.S. dollar. On January 13, 1999, the band was set between R\$1.20 and R\$1.32 per US\$1.00. Two days later, on January 15, 1999, due to market pressures, the Central Bank abolished the band system and allowed the *real*/U.S. dollar exchange rate to float freely. As a result, the exchange rate dropped to R\$2.1647 per US\$1.00 on March 3, 1999. Since then, the *real*/U.S. dollar exchange rate has been established by the interbank market, and has fluctuated considerably. In the past, the Central Bank has intervened occasionally to control unstable movements in the foreign exchange rate. It is not possible to predict whether the Central Bank will continue to let the *real* float freely or whether the *real* will remain at its present level. Accordingly, it is not possible to predict what impact the Brazilian government's exchange rate policies may have on us. The Brazilian government could impose a band system in the future or the *real* could devalue or appreciate substantially. For more information on these risks, see *Item 3.D Risk Factors—Risks Relating to Brazil*.

The following table sets forth the commercial selling rate, expressed in *reais* per U.S. dollar (R\$/US\$) for the periods indicated.

	Average for				
<u> </u>	Period-end	Period	Low	High	
Year ended					
December 31, 1997	1.116	1.088(1)	1.040	1.116	
December 31, 1998	1.209	1.168(1)	1.117	1.209	
December 31, 1999	1.789	1.851(1)	1.208	2.165	
December 31, 2000	1.955	1.835(1)	1.723	1.985	
December 31, 2001	2.320	2.353(1)	1.936	2.801	
Month ended					
December 31, 2001	2.320	2.380(2)	2.293	2.467	
January 31, 2002	2.418	2.366(2)	2.293	2.438	
February 28, 2002	2.348	2.408(2)	2.348	2.469	
March 31, 2002	2.324	2.345(2)	2.324	2.366	
April 30, 2002	2.362	2.320(2)	2.271	2.369	
May 31, 2002	2.522	2.453(2)	2.377	2.530	
June 24, 2002	2.827	2.684(2)	2.541	2.827	

<sup>(1)</sup> Average of the rates on the last day of each month in the period.

Source: Central Bank.

On June 24, 2002, the commercial selling rate was R\$2.827 per US \$1.00.

<sup>(2)</sup> Average of the lower and higher rates in the month.

## 3.B. Capitalization and Indebtedness

The table below sets forth our current liabilities and capitalization at December 31, 2001.

		At December 31, 2001 (In millions of US\$)		
Current liabilities				
Current portion of long-term debt	\$	296		
Short-term debt		589		
Other		1,036		
Total current liabilities	\$	1,921		
Long-term liabilities				
Long-term debt				
Secured	\$	633		
Unsecured		1,537		
Total long-term debt		2,170		
Loans from related parties		21		
Other		765		
Total long-term liabilities		2,956		
Minority interest		5		
Shareholders' equity				
Preferred shares—600,000,000 shares authorized and 138,575,913 issued		820		
Common shares—300,000,000 shares authorized and 249,983,743 issued		1,479		
Treasury shares—91 preferred and 4,715,170 common shares		(88)		
Additional paid-in capital		498		
Retained earnings		5,396		
Other cumulative comprehensive income		(3,465)		
Total shareholders' equity		4,640		
Total capitalization (total shareholders' equity + long-term debt)	\$	6,810		

We often use joint venture and affiliated company ownership structures with domestic and foreign partners to finance our large-scale projects. On occasion, we enter into guarantees to support the debt of these joint ventures and affiliated companies. As of December 31, 2001, we had extended guarantees for borrowings of joint ventures and affiliated companies in an aggregate amount of US\$702 million, of which US\$492 million was denominated in U.S. dollars and the remaining US\$210 million was denominated in Brazilian currency. These guarantees do not appear in the table above.

At December 31, 2001 US\$458 million of our total long-term debt was guaranteed by non-CVRD Group entities pursuant to a transaction which arose out of our privatization.

## Vale Overseas

The table below sets forth Vale Overseas' capitalization at March 31, 2002.

	At December 31, 2001 (In thousands of US\$)
Long-term debt	U.S.\$ 300,000
Shareholders equity	1
Total	U.S.\$ 300,001

## 3.C. Reasons for the Offer and Use of Proceeds

Not applicable.

### 3.D. Risk Factors

#### **Risks Relating to Brazil**

The Brazilian government has exercised, and continues to exercise, significant influence over the Brazilian economy. Brazilian political and economic conditions have a direct impact on our business and the market price of our securities.

The Brazilian government frequently intervenes in the Brazilian economy and occasionally makes drastic changes in policy. The Brazilian government's actions to control inflation and effect other policies have often involved wage and price controls, currency devaluations, capital controls and limits on imports, among other things. Our business, financial condition and results of operations may be adversely affected by changes in policy involving tariffs, exchange controls and other matters, as well as other factors outside of our control such as:

- currency fluctuations,
- inflation,
- monetary policy and interest rates,
- fiscal policy,
- energy shortages, and
- other political, social and economic developments in or affecting Brazil.

Inflation and certain government measures to curb inflation may contribute significantly to economic uncertainty in Brazil and to heightened volatility in the Brazilian securities markets and, consequently, may adversely affect the market value of our securities.

Brazil has historically experienced extremely high rates of inflation. Since the introduction of the *real* in July 1994 under the *Real* Plan, Brazil's inflation rate has been substantially lower than in previous periods. Inflation, as measured by the *Índice Geral de Preços—Mercado*, the general market price index in Brazil, or IGP-M, fell to 1.8% in 1998 before increasing to 20.1% in 1999 as a result of the devaluation of the *real* in January 1999, and decreased again to 9.9% in 2000, 10.4% in 2001 and 1.1% in the first four months of 2002. There can be no assurance that recent lower levels of inflation will continue. Future governmental actions, including actions to adjust the value of the *real*, may trigger increases in inflation. If Brazil experiences substantial inflation again in the future, our operating expenses and borrowing costs may increase, our operating and net margins may decrease and, if investor confidence decreases, the price of our securities may fall. For a more detailed discussion about inflation, see *Item 5.A.2. Inflation*.

Inflation itself and governmental measures to combat inflation have had significant negative effects on the Brazilian economy. Since 1999, governmental actions to curb inflation have included interest rate increases and intervention in the foreign exchange market through the sale of U.S. dollars and government bonds linked to the U.S. dollar. These actions may adversely affect the market value of our securities.

Fluctuations in the value of the real against the value of the U.S. dollar may result in uncertainty in the Brazilian economy and the Brazilian securities market and could lower the market value of our securities.

The Brazilian currency has historically suffered frequent devaluation and depreciation. In the past, the Brazilian government has implemented various economic plans and utilized a number of exchange rate policies, including sudden devaluations, periodic mini-devaluations during which the frequency of adjustments has ranged from daily to monthly, floating exchange rate systems, exchange controls and dual exchange rate markets. Although over long periods depreciation of the Brazilian currency generally has correlated with the rate of inflation in Brazil, depreciation over shorter periods has resulted in significant fluctuations in the exchange rate between the Brazilian currency and the U.S. dollar and other currencies.

In 1999, the *real* depreciated 48% against the U.S. dollar, and in 2000 it devalued 9%. During 2001, the *real* experienced a period of significant depreciation, in part due to the economic uncertainties in Argentina, the global economic slowdown and the energy crisis in Brazil. The *real* depreciated 18.7% against the U.S. dollar during 2001. There are no guarantees that the exchange rate between the *real* and the U.S. dollar will stabilize at current levels or that the *real* will appreciate against the U.S. dollar.

Depreciation of the *real* relative to the U.S. dollar would reduce the U.S. dollar value of distributions and the dividends on the American depositary shares and may also reduce the market value of our securities. Depreciation also creates additional inflationary pressures in Brazil by generally increasing the price of imported products and requiring recessionary government policies to curb aggregate demand. On the other hand, appreciation of the *real* against the U.S. dollar may lead to a deterioration of the current account and the balance of payments, as well as dampen export-driven growth. For a more detailed discussion about the floating exchange rate and Brazilian government measures aimed at stabilizing the *real*, see *Item 3.A.3. Exchange Rates*.

### Developments in other emerging market countries may affect the Brazilian securities markets.

International investors generally consider Brazil to be an emerging market. As a result, economic and market conditions in other emerging market countries, especially those in Latin America, influence the market for securities issued by Brazilian companies. Since the fourth quarter of 1997, the international financial markets have experienced significant volatility, and a large number of market indices, including those in Brazil, have declined significantly. For example, the Brazilian financial markets were adversely affected by the Asian financial crisis at the end of 1997 and the Russian financial crisis in 1998. In 2001, after prolonged periods of recession, followed by political instability, Argentina announced it would not service its public debt. In order to address the worsening economic and social crisis, the Argentine government abandoned its decade-old fixed dollar-peso exchange rate, allowing the currency to float. The Argentine peso experienced a 260% devaluation against the U.S. dollar from January 1 to May 31, 2002.

The continuation of the Argentine recession and the recent devaluation of the Argentine peso could adversely affect the Brazilian economy, as Argentina is one of Brazil's principal trading partners, accounting for 8.6% of Brazil's exports in 2001. The Argentine crisis may also affect the perception of risk in Brazil by foreign investors. Although the expectation of many that a similar problem would follow in Brazil has not materialized, the volatility in market prices for Brazilian securities increased in early 2001. Nonetheless, if events in Argentina continue to deteriorate, they may adversely affect our ability to borrow funds at an acceptable interest rate, to raise equity capital when and if there should be a need, or to finance capital expenditures. Approximately 63.9% of our long-term debt at December 31, 2001 is scheduled to mature in 2003 and 2004. Accordingly, adverse developments in Argentina or in other emerging market countries could harm our results of operations and lead to a reduction in the demand for, and market price of, our ADSs

## The Brazilian government's energy rationing program could adversely affect us.

We are a significant consumer of Brazil's electricity production, and accounted for 4.5% of total consumption in Brazil in 2001. Brazil faced a shortage of energy during the second half of 2001 as a result of increased demand due to economic growth, inadequate expansion of electric generation in past years and unfavorable hydrological conditions. In response, the Brazilian government imposed an energy rationing program to alleviate the energy shortage, which aimed to decrease energy consumption by at least 20%. This program had a negative impact upon the country's economic performance and inflation levels. As a result of this program, we had a temporary reduction of our aluminum and ferro-alloy production. By the end of 2001, climate conditions improved, reducing the immediate risk of energy shortages. Therefore, the Brazilian government eliminated the restrictions on the use of energy on December 31, 2001 for the northern region of Brazil, and on February 28, 2002 for the rest of Brazil. However, there currently remain forecasted shortfalls in generation capacity. We are unable to assess the impact that the government's response to future energy shortages may have on our operations.

## Our business could be affected by political instability in Brazil.

The next presidential elections in Brazil are to occur in October 2002 and Brazilian law does not allow President Fernando Henrique Cardoso, now serving a second term, to serve a third term. Changes in the

composition of the governing coalition, in the identity of ruling local parties, in the cabinet or in the presidency may potentially undermine investor confidence or produce policy changes that may adversely affect our operations and/or the price of our ADSs.

### **Risks Relating to Our Business**

## Due to our dependence on the global steel industry, any fluctuations in the demand for steel could adversely affect our business.

Sales prices and volumes in the worldwide iron ore mining industry depend on the prevailing and expected level of demand for iron ore in the world steel industry. The world steel industry is cyclical. A number of factors, the most significant of these being the prevailing level of worldwide demand for steel products, influence the world steel industry. During periods of sluggish or declining regional or world economic growth, demand for steel products generally decreases and leads to corresponding reductions in demand for iron ore. Global steel output in 2001 decreased by 0.08% to 846,900 from 847,600 tons produced during 2000. This may lead to decreases in the level of demand in the iron ore market and have an adverse effect on world contract prices and sales volumes for iron ore. Prolonged reductions or declines in world contract prices or sales volumes for iron ore would have a material adverse effect on our revenues. In addition, poor conditions in the global steel industry could result in the bankruptcy of some of our customers, which would increase our bad debt expenses.

# The mining industry is an intensely competitive industry, and we cannot assure our ability to continue to effectively compete with other mining companies in the future.

Intense competition characterizes the worldwide iron ore industry. We compete with a number of large mining companies, including international mining companies. Some of these competitors possess substantial iron ore mineral deposits at locations closer to our principal Asian and European customers and it is possible that competition from foreign or Brazilian iron ore producers in the future will result in our losing market share and revenues. Our gold, aluminum, manganese and other activities are also subject to intense competition.

#### Competition in the energy generation business tends to intensify

As a result of the Brazilian government's privatization and restructuring of the regulatory framework for the power industry, we expect an increase in competition in the generation of electricity, which could result in declining energy prices. Beginning on January 1, 2003, the provision of electricity services will be subject to further deregulation and competition may increase even further with the entry of new competitors. A sustained decrease in energy prices would lower the returns that we are expecting from our investments in the energy business.

### We are subject to cyclicality and price volatility for iron ore, aluminum and other minerals.

Cyclical and other uncontrollable changes in world market prices affect our iron ore, aluminum, gold and other mining activities. In particular, aluminum and gold are sold in an active world market and traded on exchanges, such as the London Metals Exchange and the Commodity Exchange, Inc. Therefore, the prices for these metals are more volatile than iron and pellet prices, as they respond to daily changes in supply and demand. Prolonged declines in world market prices, in nominal and real terms, for our products would have a material adverse effect on our revenues.

## Our mining activities depend on authorizations of regulatory agencies. Changes in regulations could have an adverse effect on our business.

Our mining activities in Brazil depend on authorizations and concessions by regulatory agencies of the Brazilian government. Our exploration, mining and mineral processing activities are also subject to Brazilian laws and regulations which change from time to time. If these laws and regulations change in the future, modifications to our technologies and operations could be required, and we may be required to make unbudgeted capital expenditures which could lead to an increase in our borrowing costs. For a more detailed discussion about the authorizations and concessions by regulatory agencies of the Brazilian government upon which our mining activities depend, see *Item 4.B.*, *4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Lines of Business—Non-Ferrous Minerals—Regulatory Matters*.

#### Our energy business is subject to extensive governmental regulation

The Brazilian power generation business depends on concessions granted by the government and is regulated and supervised by the Brazilian electricity regulatory governmental agency, ANEEL. Given that Brazil may face future energy shortages like the one experienced in the second half of 2001, the Brazilian government has announced its intention to issue further regulations applicable to the power system. Changes in the laws, regulations or governmental policies regarding the power generation industry, the marketing of energy in the wholesale market or concession requirements could lower the returns we are expecting from our investments in the business. For more information on the regulations governing our energy business, see *Item 4.B.*, *4.C. and 4.D. Business Overview*, *Organizational Structure and Property, Plants and Equipment—Non-Ferrous Minerals—Regulatory Matters*.

# Our operations are also regulated by Brazilian environmental laws. Changes to these laws in the future may adversely affect our mining and energy business.

Our operations often involve using, handling, disposing and discharging hazardous materials into the environment or the use of natural resources, and are therefore subject to the environmental laws and regulations of Brazil. Environmental regulation in Brazil has become stricter in recent years, and it is possible that more regulation or more aggressive enforcement of existing regulations will adversely affect us through imposing restrictions on our activities, creating new requirements for the issuance or renewal of environmental licenses, raising our costs, or requiring us to engage in expensive reclamation efforts. We are currently a defendant in an action brought by the municipality of Itabira, in the state of Minas Gerais, on the basis of environmental laws. If we do not prevail in this lawsuit, we could incur a substantial expense. For more information on environmental laws and the legal challenges we face, see *Item 4.B.*, *4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Environmental Matters* and *Item 8.A.7. Legal Proceedings*.

Our reserve estimates may be materially different from mineral quantities that we may actually recover and market price fluctuations and changes in operating and capital costs may render certain ore reserves or mineral deposits uneconomical to mine.

Our reported ore reserves and mineral deposits are estimated quantities of ore and minerals that under present and anticipated conditions have the potential to be economically mined and processed by the extraction of their mineral content. There are numerous uncertainties inherent in estimating quantities of reserves and in projecting potential future rates of mineral production, including many factors beyond our control. In addition, reserve engineering is a subjective process of estimating underground deposits of minerals that cannot be measured in an exact manner and the accuracy of any reserve estimate is a function of the quality of available data and engineering and geological interpretation and judgment. Estimates of different engineers may vary and results of our mining and production subsequent to the date of an estimate may justify revision of estimates. Reserve estimates may require revision based on actual production experience and other factors. For example, fluctuations in the market price of metals, reduced recovery rates or increased production costs due to inflation or other factors may render proven and probable reserves containing relatively lower grades of mineralization uneconomic to exploit and may ultimately result in a restatement of reserves.

## We face a number of risks which could lead to economically harmful consequences to us.

Our businesses are generally subject to a number of risks and hazards, including:

- industrial accidents,
- labor disputes,
- unexpected geological conditions,
- slope failures,
- environmental hazards,
- electricity stoppages,

- equipment or vessel failures, and
- weather and other natural phenomena.

These occurrences could result in damage to, or destruction of, mineral properties, production facilities, transportation facilities, equipment or vessels. They could also result in personal injury or death, environmental damage, waste of resources or intermediate products, delays or interruption in mining, production or transportation activities, monetary losses and possible legal liability. The insurance we maintain against risks that are typical in our business may not provide adequate coverage. Insurance against some risks (including liabilities for environmental pollution or certain hazards or interruption of certain business activities) may not be available at a reasonable cost or at all. Therefore, accidents or other negative developments involving our mining, production or transportation facilities could have a material adverse effect on our operations.

# Our mineral exploration efforts may not lead to a replenishment of our gold reserves, which could adversely affect our mining prospects.

We engage in mineral exploration principally related to copper and gold. Mineral exploration is highly speculative in nature, involves many risks and frequently is nonproductive. With respect to our gold operations, it is possible that our exploration programs will not result in the expansion or replacement of reserves depleted by current production. If we do not develop new reserves, we may not be able to sustain our current level of production beyond the remaining life of existing mines.

## Even if we discover minerals, we remain subject to drilling and production risks, which could adversely affect the mining process.

Once we discover mineralization, it may take us a number of years from the initial phases of drilling until production is possible, during which the economic feasibility of production may change. It takes substantial time and expenditures to:

- establish ore reserves through drilling,
- determine appropriate metallurgical processes for optimizing the recovery of metal contained in ore,
- obtain the ore or extract the metals from the ore, and
- construct mining and processing facilities for greenfield properties.

It is possible that a project will prove uneconomical by the time we are able to exploit it, in which case we may incur substantial write-offs.

## We face rising extraction costs as our deposits decrease.

Ore reserves gradually decrease in the ordinary course of a given mining operation. As reserves decrease, it becomes necessary for mining companies to use more expensive processes to extract remaining ore. As a result, mining companies, over time, usually experience rising unit extraction costs with respect to a particular mine. Several of our mines have operated for long periods, and we will likely experience rising extraction costs per unit in the future at these operations.

## Risks Relating to the CVRD Group

## Some of our operations depend on joint ventures and could be adversely affected if our joint venture partners do not observe their commitments.

We currently operate important parts of our pelletizing, copper exploration, logistics, energy, and aluminum businesses through joint ventures with other companies. Our forecasts and plans for these joint ventures assume that our joint venture partners will observe their obligations to contribute capital, purchase products and, in some cases,

provide managerial talent. If any of our joint venture partners do not observe its commitments, it is possible that the affected joint venture would not be able to operate in accordance with its business plans or that we would have to increase the level of our investment to give effect to these plans. For more information on our joint ventures, see Item 4.B., 4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Lines of Business—Ferrous Minerals—Pellets, —Lines of Business—Non-Ferrous Minerals—Current Copper Prospects, —Lines of Business—Logistics, —Lines of Business—Energy and —Lines of Business—Holdings—Aluminum Business—Bauxite, —Alumina and —Aluminum.

#### Our Albras joint venture is subject to substantial electricity cost increases.

Electricity costs are a significant component of the cost of producing aluminum. Our aluminum plant, Albras—Alumínio Brasileiro S.A., or Albras, obtains electric power at discounted rates from Eletronorte, a state-owned electric power utility. The contract through which Albras purchases electricity from this utility expires in 2004. It is not likely that Albras will continue to benefit from below-market electricity costs following expiration of the contract. Albras is currently trying to negotiate a new contract and is examining other alternatives. We cannot predict the impact that this will have on Albras's cost structure.

## An electricity stoppage that affects our aluminum operations could cause substantial damage.

A single 300-kilometer power line supplies electricity to Albras. Any interruption in the supply of electrical power to Albras lasting longer than six hours can cause substantial damage to cells at the Albras facility. Cells are equipment used in the process of transforming alumina into aluminum. Cells will cool off if they are deprived of energy for six consecutive hours, and may experience serious damage as a result of the cooling off process. Albras experienced an outage of four hours and several outages of less than one hour in 1996 because of a faulty Tucuruí substation, which has since been repaired. Interruptions in the supply of electricity to Albras lasting more than six hours may occur in the future.

#### We are vulnerable to adverse developments affecting other economies.

In 2001, 7.3% of our consolidated gross operating revenues were attributable to sales to Japanese customers, 12.3% were attributable to sales to other Asian customers and 29.7% were attributable to sales to European customers. In 2001, 1.7% of our sales were made to Argentine customers. As noted above, Argentina continues to experience severe economic difficulties.

A number of important Asian economies, including Japan and South Korea, have experienced difficulties in recent periods. Continuing economic difficulties in the Asian market could reduce local demand for iron ore and pellets, which, in turn, could have a material adverse effect on us. Asian economies could be harmed by a weak U.S. economy, and a slow U.S. economy could have an adverse effect on the European economy. A weakened economy in Asia or Europe could reduce demand for our products in our primary markets.

## Our principal shareholder and the Brazilian government could have a great deal of influence on our company.

Valepar, our principal shareholder, currently owns 42% of our outstanding common stock and 27% of our total outstanding capital. Litel Participações S.A. holds 42% of Valepar's stock and directly owns 10% of our outstanding common shares. For a description of our share ownership, see *Item 7.A. Major Shareholders—Principal Shareholder*. As a result of their stock ownership, Valepar and Litel have significant influence in determining the outcome of any action requiring shareholder approval, such as the election of our directors. BNDESPAR, a wholly-owned subsidiary of BNDES, the Brazilian development bank, has a golden share in Valepar, giving the Brazilian government special voting rights over certain actions of Valepar. Further, the Brazilian government, in addition to its ownership stake in us, owns a golden share in us, which gives it veto powers over certain actions that we could propose to take. For a detailed description of the veto powers granted to the Brazilian government by virtue of its ownership of this golden share, see *Item 10.B. Memorandum and Articles of Association—Common Shares and Preferred Shares—General*.

#### We are subject to ongoing antitrust investigations.

Conselho Administrativo de Defesa Econômica, or CADE, the Brazilian antitrust regulator, has initiated inquiries into our principal lines of business to determine whether undue concentration exists in our industries. We cannot predict the outcome of these inquiries. If CADE were to determine that undue concentration exists in one or more of our industries, CADE could impose measures to safeguard competition in that industry. These measures could include requiring us to divest certain operations or imposing price restrictions.

## Our risk management strategy may not be effective.

We are exposed to fluctuations in interest rates, foreign currency exchange rates, and commodity prices relating to our iron ore, aluminum and gold production. In order to partially protect ourselves against unusual market volatility, we periodically enter into hedging transactions to manage these risks. We do not hedge risks relating to iron ore price fluctuations. See *Item 11. Quantitative and Qualitative Disclosures about Market Risk*. However, our hedging strategy may not be successful in minimizing our exposure to these fluctuations. In addition, to the extent we hedge our commodity price exposure, we forego the benefits we would otherwise experience if commodity prices were to increase.

### Risks Relating to the American Depositary Shares

Restrictions on the movement of capital out of Brazil may hinder your ability to receive dividends and distributions on American depositary shares, and the proceeds from any sale of American depositary shares.

From time to time, the Brazilian government may impose restrictions on capital outflow that would hinder or prevent the custodian who acts on behalf of the depositary for the American depositary shares from converting proceeds from the shares underlying the American depositary shares into U.S. dollars and remitting those proceeds abroad. Brazilian law permits the government to impose these restrictions whenever there is a serious imbalance in Brazil's balance of payments or reasons to foresee a serious imbalance.

The Brazilian government imposed remittance restrictions for approximately six months in 1989 and early 1990. If enacted, similar restrictions would hinder or prevent the conversion of dividends, distributions or the proceeds from any sale of shares from *reais* into U.S. dollars and the remittance of the U.S. dollars abroad. In such a case, the custodian, acting on behalf of the depositary, will hold the *reais* it cannot convert for the account of the holders of American depositary receipts who have not been paid. The depositary will not invest the *reais* and will not be liable for interest on those amounts. Furthermore, any *reais* so held will be subject to devaluation risk.

# If you exchange American depositary shares for the underlying shares, you risk losing the ability to remit foreign currency abroad and Brazilian tax advantages.

The Brazilian custodian for the shares underlying our American depositary shares will obtain a certificate of registration from the Central Bank of Brazil to be entitled to remit U.S. dollars abroad for payments of dividends and other distributions relating to the shares underlying our American depositary shares or upon the disposition of the underlying shares. If you decide to exchange your American depositary shares for the underlying shares, you will be entitled to continue to rely, for five business days from the date of exchange, on the custodian's certificate of registration. Thereafter, you may not be able to obtain and remit U.S. dollars abroad upon the disposition of, or distributions relating to, the underlying shares unless you obtain your own certificate of registration by registering your investment in the underlying shares under Law No. 4,131 or Resolution No. 2,689 of the National Monetary Council, which entitles foreign investors to buy and sell securities on the São Paulo stock exchange. For more information regarding these exchange controls, see Item 10.D. Exchange Controls and Other Limitations. If you attempt to obtain your own certificate of registration, you may incur expenses or suffer delays in the application process, which could delay your ability to receive dividends or distributions relating to the underlying shares or the return of your capital in a timely manner. We cannot assure you that the custodian's certificate of registration or any certificate of foreign capital registration obtained by you will not be affected by future legislative changes, or that additional restrictions applicable to you, the disposition of the underlying shares or the repatriation of the proceeds from disposition will not be imposed in the future.

Because we are not obligated to file a registration statement with respect to preemptive rights relating to our shares, you might be unable to exercise those preemptive rights.

Holders of American depositary receipts that are residents of the United States may not be able to exercise preemptive rights, or exercise other types of rights, with respect to the underlying shares. Your ability to exercise preemptive rights is not assured unless a registration statement is effective with respect to those rights or an exemption from the registration requirements of the Securities Act is available. We are not obligated to file a registration statement relating to preemptive rights with respect to the underlying shares and we cannot assure you that we will file any registration statement. If a registration statement is not filed and an exemption from registration does not exist, JPMorgan Chase Bank, as depositary, will attempt to sell the preemptive rights, and you will be entitled to receive the proceeds of the sale. However, the preemptive rights will expire if the depositary cannot sell them. For a more complete description of preemptive rights with respect to the underlying shares, see *Item 10.A. Share Capital—Preemptive Rights*.

### Holders of our American depositary receipts may encounter difficulties in the exercise of voting rights.

Holders of our common shares are entitled to vote on shareholder matters, while holders of our preferred shares are not entitled to vote except in extremely limited circumstances. You may encounter difficulties in the exercise of some of your rights as a shareholder if you hold our American depositary shares rather than the underlying shares. For example, under some circumstances, such as our failure to provide the depositary with voting materials on a timely basis, you may not be able to vote by giving instructions to the depositary on how to vote for you. For a detailed description of your rights as an American depositary receipt holder, see *Item 10.A. Share Capital—Preemptive Rights*.

### Item 4. Information on the Company

### 4.A.1-3. Incorporation of the Company

Our legal and commercial name is Companhia Vale do Rio Doce. We are a limited liability company, or *sociedade anônima*, duly organized on January 11, 1943, and existing under the laws of the Federative Republic of Brazil. We are organized for an unlimited period of time. Our principal executive offices are located at Avenida Graça Aranha, No. 26, 20005-900 Rio de Janeiro, RJ, Brazil, and our telephone number is (011) 55-21-3814-4540.

Our wholly-owned subsidiary Vale Overseas was registered and incorporated as a Cayman Islands exempted company with limited liability on April 3, 2001 (registration number 113637). Vale Overseas has been incorporated for an indefinite period of time. Its registered office is at Walker House, P.O. Box 908 GT, Mary Street, Georgetown, Grand Cayman, Cayman Islands.

### 4.A.4. Development of the Company

## **Recent Developments**

The following discussion describes some of the important recent developments in our businesses.

Mining

At December 31, 2001, in our wholly-owned and majority-owned operations, we had 4.0 billion tons of proven and probable iron ore reserves and 130 million tons per year of iron ore production capacity. In 2001, we acquired an additional 15 million tons of iron ore production capacity and 263 million tons of other mineral deposits. We describe significant mining acquisitions below.

Samitri. In May 2000, we acquired a controlling interest in S.A. Mineração da Trindade, known as Samitri. In September 2000, through a public tender, we acquired additional shares to bring our ownership to 99.3% of the voting capital and 99.2% of the total capital of Samitri. In February 2001, we increased our ownership interest in Samitri to 100% by exchanging 140,023 of our preferred class A shares for the shares in Samitri that we did not already own. In October 2001, we merged Samitri into CVRD. The total cost of the Samitri acquisition was US\$710.5 million, which we principally financed with operating cash flow. Samitri operates the Alegria, Água Limpa and Córrego do Meio iron ore mining complexes in the state of Minas Gerais, and is one of Brazil's largest

producers of iron ore. Its production capacity is 17.5 million tons per year, and it has proven and probable reserves of 691 million tons of high grade hematite and other mineral deposits of 11.6 billion tons of itabirites. The Samitri acquisition allowed us to acquire a 50% interest in the pelletizing operations of Samarco Mineração S.A., described below.

Ferteco. In April 2001, we acquired 100% of Ferteco Mineração S.A. from Thyssen Krupp Stahl AG, for US\$523 million. Ferteco is one of the largest producers of iron ore in Brazil, with a production capacity of 15 million tons per year. It has other mineral deposits of 263 million tons of hematite and itabirite ores, with a quality similar to our Southern System reserves. It operates two open pit iron ore mines, Fábrica and Feijão, and a pellet plant in the Iron Quadrangle region in the State of Minas Gerais which has a production capacity of 4 million tons per year. Ferteco accounted for 2% of world iron ore production in 2001.

Additionally, Ferteco owns 9.8% of the total capital of MRS Logística S.A., a Brazilian railroad company. MRS has 1,612 kilometers of track linking the states of Rio de Janeiro, São Paulo and Minas Gerais, with a capacity to transport 80 million tons per year. Ferteco also operates a marine terminal through its wholly owned subsidiary, Companhia Portuária Baía de Sepetiba S.A., in the port of Sepetiba, Rio de Janeiro.

Baovale. In August 2001, we agreed to supply Shanghai Baosteel Group Corporation, a steel company located in the People's Republic of China, with approximately 6 million tons of iron ore annually for a 20-year term. In addition, we and Baosteel agreed to form a joint venture, Baovale Mineração S.A. In October 2001, we ceded our mining rights in the Água Limpa mining complex located in the Southern System to Baovale, which resulted in a decrease of 68.8 million of tons in our proven and probable reserves. In return, Baosteel paid us US\$18.9 million for its 50% stake in Baovale's total capital. In exchange for a monthly fee, Baovale leases us its rights in the mining deposit which we continue to operate. We expect that this transaction will increase our presence in the Asian market.

Belém. In September 2001 we acquired a 99.99% stake in Belém Administrações e Participações Ltda., from Bethlehem Steel Corporation and Bethlehem Steel International Corporation for approximately US\$25 million. Belém is a holding company which owns 9.9% of Empreendimentos Brasileiros de Mineração S.A., a privately held company controlled by Caemi Mineração e Metalurgia S.A., a Brazilian producer of iron ore and pellets, as well as kaolin and refractory bauxite.

*Sossego*. In October 2001, we acquired all of Phelps Dodge Exploration Corporation's stake in Mineração Serra de Sossego S/A for \$42.5 million. As a result of the transaction, we now own 100% of Sossego. Sossego is a copper project in the Carajás region, state of Pará, with an estimated 313 million tons in copper ore reserves.

*Codelco*. In November 2001, we agreed to form a 50/50 joint venture to explore new opportunities to produce and process copper with Corporación Nacional del Cobre de Chile, or Codelco, the world's largest copper producer.

Caemi. In December 2001, we acquired 50% of Caemi's voting shares for US\$278.7 million. We completed the acquisition after receiving the approval of the European Commission, which required as a condition that Caemi sell its 50% interest in Quebec Cartier Mining Company, known as QCM, a Canadian iron ore and pellets producer. Caemi has been following all the procedures required by the European Commission and is in the process of disposing of its stake in QCM but has not entered into a definitive agreement to do so. We currently own 50% of the voting capital and 17% of the total capital of Caemi. Mitsui & Co., Ltd. holds the remaining 50% of Caemi's voting capital. Caemi accounted for 3% of world iron ore production in 2000. We are obligated to indemnify the seller from whom we purchased our interest in Caemi against certain liabilities in connection with the transaction. In a pending arbitration, other former shareholders of Caemi who also sold their shares in the transaction have alleged that the seller should have closed the transaction earlier, and that certain actions by the seller resulted in a lower sale price for their shares. This arbitration proceeding is in its early stages and we are unable to predict its outcome, although we do not expect that any liability under the indemnity would be material.

*Nucor*. In April 2002, we signed a non-binding memorandum of cooperation to identify potential iron and steel business opportunities for joint development with Nucor Corporation, a North American steelmaker. We will be exploring opportunities with Nucor, including projects that offer strategic position in North and South America and mutually advantageous opportunities that may arise as a result of the restructuring of the North American steel industry.

*Salobo*. In June 2002, we acquired Anglo American's 50% interest in Salobo Metals S.A. through our subsidiary Caulim do Brasil Investimentos S/A for US\$50.9 million. Salobo is the largest of five copper projects that we are currently developing, with estimated mineral reserves of 784 million tons. We now own, directly and indirectly, 100% of Salobo's equity capital.

*Antofagasta*. In June 2002, we signed a memorandum of understanding with Antofagasta Plc, one of Chile's largest copper producers, to develop a 50/50 joint venture for mining, research and exploration near Cuzco in southern Peru. We intend to invest US\$6.7 million over the next three years on this joint venture.

#### Pellets

In 2001, we acquired an additional 4 million tons of annual production capacity of pellets through our acquisition of Ferteco. Our pelletizing joint ventures have a combined annual production capacity of 35.8 million tons. Of this total, 17.9 million tons corresponded to our equity ownership in the pelletizing joint ventures as of December 31, 2001, and thus represented our attributable share. In addition, as of December 31, 2001, our wholly-owned pelletizing operations had a combined annual production capacity of 9.2 million tons.

Samarco. Samarco is one of the world's largest exporters of pellets. We acquired a controlling interest in Samarco through our Samitri acquisition, described above. When we acquired Samitri, Samitri owned 51% of Samarco, and the remaining 49% of Samarco was held by Broken Hill Proprietary Company Limited, or BHP, the Australian mining concern. Samitri subsequently sold a 1% share of Samarco to BHP for US\$8 million in order to equalize the parties' ownership interests.

São Luís. In March 2002, we completed the construction of our new São Luís pelletizing plant. We expect the plant to produce 2 million tons of pellets in 2002, and by 2003, reach full nominal capacity of 6 million tons per year. This investment will bring our consolidated pellet production capacity to 33.1 million tons per year. Our total capital expenditure for the plant was US\$188 million.

#### Energy

In 2001 and 2000, we consumed 12.5 TWh and 13.8 TWh of electricity, respectively. Energy management and supply has become a priority for us, driven both by the Brazilian government's privatization program of the industry, and by the risk of rising electricity prices and electricity rationing due to energy shortages, such as the one Brazil experienced in the second half of 2001. We currently perceive favorable investment opportunities in the Brazilian electricity sector and are taking advantage of them to invest in hydroelectric power generation projects. We currently hold stakes in nine hydroelectric power generation projects (Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I, Capim Branco II, Foz do Chapecó and Santa Isabel), which have a total projected capacity of 3,364 MW. The Igarapava and Porto Estrela power plants started operations in January 1999 and September 2001, respectively. Our remaining power generation projects are scheduled to start operations within the next five years. These projects may sell their production to third parties in the power market, and, as a result, our energy department will be engaged in wholesale marketing activities. Our energy business is comprised of the sale but not the delivery of electricity. We may use some of the electricity from these projects for our internal needs. As we are a large consumer of electricity, we expect that investing in the energy business will help protect us against electricity price volatility.

#### Divestitures

In line with our focus on mining, logistics and energy, we have moved to pare down our holdings of non-strategic assets. We have disposed of almost all of our pulp and paper assets and are also pursuing the sale of assets in the steel and transportation sectors that are not strategically connected to our core businesses.

In the pulp and paper industry, in March 2001, we concluded the sale of our interest in Bahia Sul Celulose S.A., known as Bahia Sul, for approximately US\$318 million. In September 2001, we concluded the sale of our stake in Celulose Nipo Brasileira, S.A., known as Cenibra, to our former partner for US\$670.5 million. In June 2002, we agreed to sell approximately 70,000 acres of eucalyptus forest in the San Mateus region of the state of Espirito Santo

to Aracruz Celulose S.A. and Bahia Sul. Once this transaction closes, we will have sold all of our pulp and paper assets.

In the steel industry, we disposed of our 2.3% stake in Açominas in December 2000 for US\$10 million worth of preferred shares of Gerdau S.A., a publicly listed steel company, which we intend to sell in the future. In addition, in March 2001, we disposed of our 10.3% stake in Companhia Siderúrgica Nacional or CSN. We transferred our interest in CSN, valued at US\$249 million to Fundação Vale do Rio Doce de Seguridade Social, known as VALIA, our employee pension fund, in order to satisfy a funding obligation that we owed VALIA. For more information on this contribution to VALIA see *Item 6.D. Employees*. Finally, we have begun the process of divesting our dry-bulk cargo shipping assets. In February 2002, Docenave sold six of its carrier vessels, with a total capacity of 592,240 DWT, to Empresa Naviera Elcano, S.A., a Spanish company, for US\$53 million. Docenave subsequently sold another three vessels for US\$7.5 million. We intend to sell Docenave's remaining dry-bulk assets in the future, but have reached no agreement regarding this sale to date.

In the logistics industry, in August 2001, we sold our 50% interest in the Rio Doce Pasha marine terminal, located in the port of Los Angeles in Los Angeles, California, to our partner in the joint venture, the Pasha Group, for approximately US\$10 million. This marine terminal principally handles imports of steel slabs for California Steel Industries, Inc., or CSI, our steelmaking joint venture.

Unwinding of Our Cross-Holding Relationships With CSN

We acquired a stake in Companhia Siderúrgica Nacional, or CSN, during its privatization process in 1993. CSN, in turn, acquired a 6.8% stake in us during the first step of our privatization process in 1997, through its indirect participation in Valepar, our principal shareholder. In line with our strategy to consolidate and focus on mining, logistics and energy, in the first quarter of 2001, we implemented a program to unwind our cross-holding relationships with CSN.

In March 2001, CSN concluded the sale of its shares in Valepar to Litel Participações S.A., Bradesplan Participações S.A. and Bradespar S.A. Bradesplan and Bradespar subsequently transferred their shares in Valepar to Babié Participações, S.A. Babié is a holding company owned by Bradesplan and Bradespar.

In March 2001, we transferred our 10.3% stake in CSN, valued at US\$249 million, to VALIA, our employee pension fund. For more information on this contribution to VALIA, see *Item 6.D. Employees*.

As part of the unwinding transaction, CSN granted us the following rights of first refusal relating to CSN's Casa de Pedra mine, each of which lasts for a period of 30 years:

- the right to purchase any iron ore produced by the mine beyond CSN's internal requirements,
- the right to purchase or to rent the mine should CSN decide to sell or lease it, and
- the right to become a joint venture partner should CSN decide to form a pelletizing joint venture with a third party with iron ore produced by the mine.

In return, we have granted CSN a right of first refusal to participate with us in the construction of any new steel producing facilities that we undertake in the next five years.

This transaction, as a whole, is subject to review by the Brazilian antitrust authorities.

We do not expect the unwinding of our cross-holding relationships with CSN to have any significant impact on our operations and financial results.

## **4.A.5.** Capital Expenditures and Divestitures

The table below sets forth our capital expenditures by business area for the periods indicated. Our capital expenditures have historically been more intensive in the second half of the year.

	For the Year Ended December 31,						
Business Area	1999		2000		2001		
	(in millions of USS)						
Ferrous	US\$	183	US\$	354	US\$	454	
Non-ferrous		56		50		40	
Logistics		4		14		25	
Energy		18		19		52	
Corporate center		4		10		24	
Total	US\$	265	US\$	447	US\$	595	

Capital expenditures relating to ferrous products increased 42.9% from US\$354 million in 2000 to US\$506 million in 2001, primarily due to the construction of the São Luís pelletizing plant (US\$84 million), the construction of infrastructure needed for its installation (US\$55 million) and the acquisition of locomotives for transportation of iron ore (US\$21 million).

For a description of our divestitures, see Item 4.A.4. Development of the Company—Divestitures.

### 4.A.6. Current Capital Expenditures and Divestitures

See Item 5.B.3. Budgeted Capital Expenditures, for a description of budgeted capital expenditures.

See *Item 4.A.4. Development of the Company*, for a description of current divestitures.

#### 4.A.7. Public Takeover Offers

Not applicable.

## 4.B., 4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment

## **Business Overview**

We are one of the world's largest producers and exporters of iron ore. We are the largest diversified mining company in the Americas by market capitalization and one of the largest companies in Brazil. We hold exploration claims that cover 7.0 million hectares (17.3 million acres). We operate two large railway systems that are integrated with our mining operations. Through joint ventures, we have major investments in the production of aluminum.

For the year ended December 31, 2001, we had consolidated gross operating revenues of US\$4,132 million, 62.9% of which were attributable to sales of iron ore and pellets, 14.7% of which were attributable to third-party transportation, 6.9% of which were attributable to sales of aluminum sector products and 3.4% of which were attributable to sales of gold. For the year ended December 31, 2001, we recorded consolidated operating income of US\$929 million and consolidated net income of US\$1,287 million. Our equity in results of affiliates and joint ventures and provisions for losses and write-downs on equity investments in aggregate totaled US\$53 million over that period.

Our main lines of business are mining, logistics and energy and are generally grouped according to the business segments below:

- ferrous minerals: comprised of iron ore, pellets as well as manganese and ferro alloys businesses,
- non-ferrous minerals: comprised of gold, kaolin, potash and copper businesses,
- logistics: comprised of railroads, ports and terminals and shipping businesses,

- energy: comprised of power generation businesses, and
- holdings: comprised of aluminum, steel, fertilizers and e-commerce businesses.

Mining. Our primary mining activities involve iron ore. We operate two world-class integrated systems in Brazil for producing and distributing iron ore, each consisting of mines, railroads and port and terminal facilities. The Southern System, based in the states of Minas Gerais and Espírito Santo, contains aggregate estimated proven and probable iron ore reserves of approximately 2.3 billion tons. The Northern System, based in the states of Pará and Maranhão, contains aggregate estimated proven and probable iron ore reserves of approximately 1.2 billion tons. We also operate ten pellet producing facilities, six of which are joint ventures with international partners. We have a 50% stake in Samarco Mineração S.A., in Ponta do Ubu, which owns and operates two pelletizing plants.

Exploration Assets. As part of our mineral prospecting and development activities in Brazil, we have acquired extensive experience in exploration techniques and processes specifically designed for use in tropical areas of the world. Our current mineral exploration efforts are mainly in Brazil and focus on copper, gold, nickel, manganese, and kaolin. Expenditures for a mineral exploration program were US\$43 million in 2001 We currently hold claims to explore approximately 7.0 million hectares (17.3 million acres).

Logistics. In our logistics business, we provide our clients with various forms of transportation and related support services, such as warehouse, port and terminal services. We are a leading competitor in the Brazilian transportation industry. Each of our iron ore complexes incorporates an integrated railroad network linked to automated port and terminal facilities, and is designed to provide iron ore, freight and passenger rail transportation, bulk terminal storage and ship loading services to us and third parties. For 2001, our railroads transported approximately 55.4% of the total freight tonnage transported by Brazilian railroads, or approximately 167.1 million tons of cargo, of which 79.6 million tons were our iron ore and pellets. Of the total amount transported, 51% was for third parties and 49% was for ourselves. Our two wholly-owned railroads, the Vitória-Minas railroad and the Carajás railroad, serve primarily to transport our iron ore products from interior mines to coastal port and terminal facilities. In addition, the Vitória-Minas railroad carries significant amounts of third party cargo as well as passengers.

Energy. In 2001, we began to consider energy as a core business, although at present energy production does not represent a significant portion of our activities. We currently hold stakes in nine hydroelectric power generation projects (Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I, Capim Branco II, Foz do Chapecó and Santa Isabel) which have a total projected capacity of 3,364 MW. The Igarapava and the Porto Estrela power plants started operations in January 1999 and September 2001, respectively. Our remaining power generation projects are scheduled to start operations within the next five years. Depending on market conditions, the power generated by these plants will be sold in the market and/or used for our own operations. See *Item 4.B.*, *4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Lines of Business—Energy.* 

Aluminum Operations. Through joint ventures, our wholly owned subsidiary, Aluvale, conducts major operations in the production of aluminum. They include bauxite mining, alumina refining and aluminum metal smelting and marketing. Aluvale conducts its bauxite mining activities through its 40.0% interest in MRN, which holds substantial bauxite reserves with a low strip ratio and high recovery rate. MRN, one of the largest bauxite producers in the world, produced 10.7 million tons of bauxite in 2001. Aluvale currently holds a 50.3% voting interest in our alumina refining joint venture, Alunorte, which has a nominal production capacity of 1.5 million tons of alumina per year. Aluvale participates in two aluminum smelting joint ventures, Albras, in which it has a 51.0% interest, and Valesul, in which it has a 54.5% interest. These joint ventures have a combined production capacity of 500,000 tons of aluminum per year. Our integrated aluminum operations rank among the largest in Latin America in terms of production volume.

*Vale Overseas.* Vale Overseas, our wholly-owned subsidiary, is a finance company for the CVRD Group. Its business is to borrow money outside Brazil by issuing securities to finance CVRD's activities outside Brazil or to on-lend it to other CVRD Group companies. On March 8, 2002, Vale Overseas issued 8.625% notes maturing on March 8, 2007, extendable to September 8, 2008, to raise US\$300 million. The issuance of the notes was its first borrowing.

### **Business Strategy**

Through organic, disciplined growth and selective acquisitions, we will continually seek to develop our mining, logistics and energy capabilities and increase scale while working to reduce costs. We aim to achieve earnings growth and increase cash generation, while maximizing our return on capital employed and the total return to our shareholders. We are focusing on our core businesses of mining, logistics and energy to achieve these goals, by:

- maintaining our leadership position in the world iron ore market,
- expanding our pelletizing facilities to accommodate current market demands,
- growing our logistics business,
- developing our copper resources,
- increasing our aluminum activities, and
- developing power generation projects.

## Maintaining Our Leadership Position in the World Iron Ore Market

In 2001, we produced 14% of the world's iron ore, more than any other producer. In 2001, we acquired Ferteco, which accounted for 2% of world iron ore production in 2001, and we acquired one half of the control of Caemi, which accounted for 3% of world iron ore production in 2001. We are committed to maintaining our position in the world iron ore market by keeping close contact with our customers, focusing our product line to capture industry trends and controlling costs. We believe that our strong relationships with major customers, tailored product line and logistical advantages will enable us to achieve this goal.

### Expanding Our Pelletizing Facilities to Accommodate Current Market Demands

We believe that, in the long term, the growth rate of global demand for pellets will continue to be higher than the growth rate of the overall iron ore market, and therefore we plan to continue investing in the development of this dynamic segment of the iron ore market. We constructed a new pelletizing plant at São Luís, which started commercial operation in June 2002 and by 2003 will have a production capacity of 6 million tons of pellets per year, and we are expanding production capacity at our Samarco pellet operations. When these investments are completed, we and our joint ventures will have an additional 5.2 million tons of annual production capacity, and a total of 56.2 million tons of annual production capacity.

## Growing Our Logistics Business

The privatization and deregulation of transportation facilities has revitalized the Brazilian logistics market. We believe there is potential for growth in the near term from the conversion of existing truck haulage to rail, and in the longer term from increased bulk cargo resulting from economic growth in Brazil. We believe that the quality of our railway assets and our many years of experience as a railroad and port operator position us to take advantage of this market and establish ourselves as a leading Brazilian logistics company serving both domestic and export markets. We plan to focus on the physical and commercial integration of our transportation assets, and also to take advantage of new e-business technology.

## Developing Our Copper Resources

Global demand for copper grew rapidly in the 1990s. From 1993 to 2001, global consumption of copper increased from 10,967,000 tons to 15,281,000 tons per year. Although growth was adversely affected by the global economic slowdown in 2001, we expect strengthening of the growth trend over the next decade, driven by the spending in the automotive, computer, telecommunications and electrical appliance sectors of the world economy. We believe that our copper projects, which are all situated in the Carajás region, can be among the most competitive in the world in terms of investment cost per ton of ore. When our copper mines enter production, they will benefit from our transportation facilities serving the Northern System. Additionally, in March 1997, we and BNDES,

entered into a Mineral Risk Contract providing for the joint development of certain unexplored mineral resources in approximately two million identified hectares of land in the Carajás region, as well as proportional participation in any financial benefits earned from the development of those resources. For more detailed information on the Mineral Risk Contract, see *Item 4.B.*, *4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Lines of Business—Non-Ferrous Minerals—Current Copper Prospects—Mineral Risk Contract.* 

#### Increasing Our Aluminum Activities

We believe that global demand for aluminum will continue to grow during the next decade, driven mainly by the transportation and packaging industries. We therefore plan to develop and increase production capacity in our integrated aluminum operations. Our bauxite joint venture, MRN, is increasing annual production capacity from 11.0 to 16.3 million tons by 2003. Our alumina joint venture, Alunorte, is increasing annual production capacity from 1.5 to 2.3 million tons per year by 2002. Our aluminum joint venture, Albras, increased its production capacity by 40,000 tons in 2001. In addition, we own large unexplored deposits of high quality bauxite in the states of Pará and Maranhão that will allow us to pursue further growth opportunities in the aluminum sector.

### **Developing Power Generation Projects**

In 2001 and 2000, we consumed 12.5 TWh and 13.8 TWh of electricity, respectively. Energy management and supply has become a priority for us, driven both by the Brazilian government's privatization program of the industry, and by the risk of rising electricity prices and electricity rationing due to energy shortages, such as the one Brazil experienced in the second half of 2001. We currently perceive favorable investment opportunities in the Brazilian electricity sector and are taking advantage of them to invest in hydroelectric power generation projects. These projects may sell their production to third parties in the power market, and, as a result, our energy department will be engaged in wholesale marketing activities. Our energy business is comprised of the sale but not the delivery of electricity. We may use some of the electricity from these projects for our internal needs. As we are a large consumer of electricity, we expect that investing in the energy business will help protect us against electricity price volatility.

In 2001, we spent US\$52 million on investments in power projects. We currently hold stakes in two hydroelectric power plants (Igarapava and Porto Estrela), which have already started operations. Both are located in the state of Minas Gerais. We are also investing in the construction of five hydroelectric power plants and developing the economical and environmental feasibility studies for two other hydroelectric projects for which we and our joint venture partners have obtained the concessions. When completed, these projects will provide us with the equivalent of approximately half of our 2001 electricity consumption (approximately 12.5 TWh). We are also analyzing other hydroelectric power projects that will require additional investments.

#### LINES OF BUSINESS

Our principal lines of business consist of mining, logistics and energy. For internal management purposes, we group our aluminum operations together with our other significant equity participations in steel and pulp and paper. See *Item 4.B.*, *4.C.*, and *4.D. Business Overview*, *Organizational Structure and Property*, *Plants and Equipment—Lines of Business—Holdings*.

### **Ferrous Minerals**

Our ferrous minerals business segment comprises iron ore mining and pellet production, as well as transportation facilities in the Northern and Southern Systems (including railroads, ports and terminals) as they relate to mining operations. Manganese mining and ferro-alloys are also part of our ferrous minerals business.

The table below sets forth our ferrous minerals revenues by geographic market and by category for the periods indicated as reflected in our consolidated financial statements.

	For the Year Ended December 31,						
	1999		2000		2	2001	
	(in millions of US\$)						
Revenues classified by geographic destination							
Export sales:							
Latin America	US\$	149	US\$	224	US\$	238	
United States		147		252		247	
Europe		621		969		1,469	
Middle East		146		209		216	
Japan		351		544		525	
Asia, other than Japan		575		651		864	
Other		_		_		_	
		1,989		2,849		3,559	
Domestic sales		639		1,000		1,082	
Total	US\$	2,628	US\$	3,849	US\$	4,641	
Revenues classified by category							
Iron ore	US\$	1,859	US\$	2,710	US\$	3,438	
Pellets		632		769		860	
Manganese and ferro-alloys		137		370		343	
Total	US\$	2,628	US\$	3,849	US\$	4,641	

## Iron Ore

We conduct our iron ore business primarily at the parent company level.

System Structure

The table below sets forth information regarding our proven and probable iron ore reserves as of December 31, 2001. The estimates of mineral reserves have been audited and verified by AMEC Engineering and Construction Services, or AMEC, experts in geology, mining and ore reserve determination.

	<b>Proven and Probable Reserves</b>			
	Ore Tonnage	Grade(1)		
	(In millions of tons)	(% Fe)		
Southern System				
Itabira District				
Cauê	15.5	46.9		
Conceição	319.5	56.7		
Dois Córregos(2)	403.7	59.5		
Total Itabira District	738.7	58.0		
Timbopeba(6)	115.8	55.1		
Gongo Soco Complex(8)	486.7	54.7		
Capanema/Ouro Fino(3)	26.7	59.2		
Fazendão	237.2	50.6		
Samitri				
Alegria Complex(9)	619.4	54.2		
Morro Agudo Complex(10)	64.1	45.4		
Córrego do Meio Complex(11)	7.2	58.6		
Total Samitri	690.6	53.2		

	<b>Proven and Probable Reserves</b>			
	Ore Tonnage	Grade(1)		
	(In millions of tons)	(% Fe)		
Samarco (7)	595.4	46.2		
Total Southern System	2,891.1	53.2		
Northern System				
Carajás(4)	1,100.7	65.3		
Total CVRD Group	3,991.9	56.5		

- (1) CVRD equity interest in mines is 100% unless otherwise noted.
- (2) Consists of several mines.
- (3) CVRD ownership interest is 51%.
- (4) Includes four active mines.
- (5) The subtotal and total figures include weight-averaged ore grades.
- (6) Reserves are based on 2001 model.
- (7) CVRD owns 50 percent of Samarco.
- (8) Gongo Soco Complex consists of Gongo Soco, Brucutu, Bau and Gralhos deposits.
- (9) Alegria, Fábrica Nova and Morro da Mina deposits.
- (10) Água Limpa and Cururu deposits.
- (11) Córrego do Meio and Segredo deposits.

The table below sets forth information regarding our mines. The projected exhaustion dates are based on 2001 production levels.

Mine	Commencement of Operations	Projected Exhaustion Date	Our Ownership Interest	Production For	the Year Ended	December 31,
				1999	2000	2001
			(percent)	(in millions of tons)		
Southern System						
Itabira District						
Cauê	1942	2014	100%	17.8	20.1	19.7
Conceição	1957	2014	100	18.8	19.8	19.2
Dois Córregos	_	_	_		_	
Total Itabira District	_	_	_	36.6	39.9	38.9
Timbopeba	1984	2006	100	7.4	7.6	5.5
Gongo Soco Complex(1)	2000	2010	100	0.7	6.6	6.7
Capanema/Ouro Fino	1982	2003	51	3.7	5.3	3.9
Fazendão	1997	_	100	0.9	1.2	1.0
Samitri						
Alegria Complex(2)	2000	2040	100	_	9.4	9.7
Água Limpa Complex(3)	2000	2009	100	_	3.7	2.5
Córrego do Meio Complex(4)	2000	2006	100		1.5	1.2
Total Samitri	_	_	_		14.6	13.4
Urucum(5)	1993	_	100	0.6	0.7	0.6
Total Southern System	_	_	_	49.9	75.9	70.0
Northern System						
Carajás(6)	1986	2021	100	44.0	47.6	52.4
Total CVRD Group				93.9	123.5	122.4

<sup>(1)</sup> The Gongo Soco Complex consists of the Gongo Soco, Brucutu, Baú and Gralhos deposits.

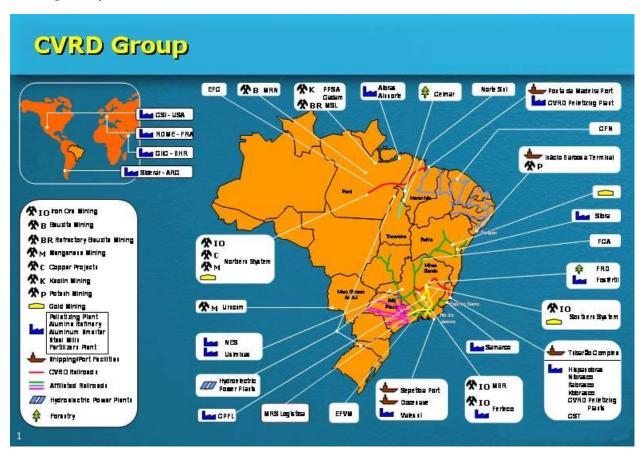
<sup>(2)</sup> The Alegria Complex consists of the Alegria, Fábrica Nova and Morro da Mina deposits.

<sup>(3)</sup> The Água Limpa Complex consists of the Água Limpa and Cururu deposits.

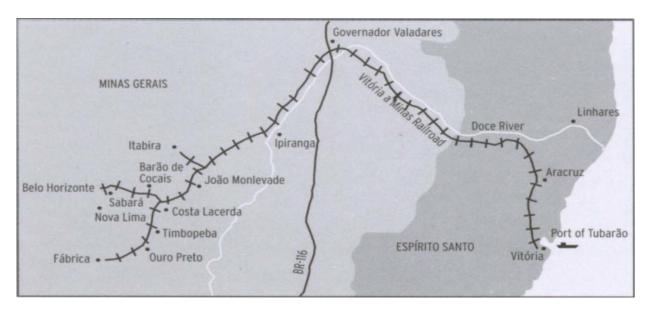
<sup>(4)</sup> The Córrego do Meio Complex consists of the Córrego do Meio and Segredo deposits.

<sup>(5)</sup> There are no proven and probable reserves at Urucum.

<sup>(6)</sup> Includes four active mines.



Our iron ore mining and related operations are concentrated in two regions in Brazil, the Southern System and the Northern System. The Southern System is located in the States of Minas Gerais and Espírito Santo, and the Northern System is located in the States of Pará and Maranhão. Each system includes iron ore reserves and other mineral deposits, mines, ore processing facilities and integrated railroad and terminal transportation facilities. Our railroads connect each system and bring products from the mines to our marine terminals, located at Tubarão and Praia Mole in the Southern System, and Ponta da Madeira in the Northern System. The operation of two separate systems, each with transportation capability under our control, enhances reliability and consistency of service to our customers.

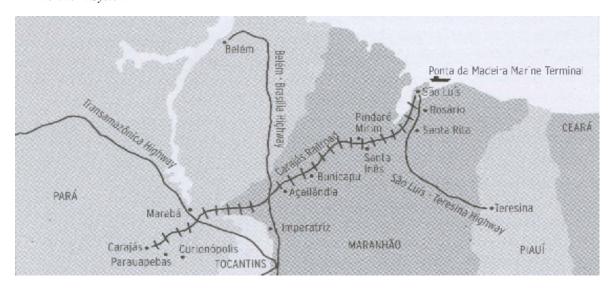


The Southern System is an integrated system consisting of iron ore mines, the Vitória-Minas railroad, and the Ports of Tubarão and Praia Mole (located in Vitória, in the State of Espírito Santo). The iron ore mines of the Southern System are located in a region called the Iron Quadrangle in the State of Minas Gerais, in the southeast of Brazil. Nine mining complexes compose this system: Cauê and Conceição in the Itabira District, Timbopeba, Gongo Soco Complex, Alegria Complex, Água Limpa Complex, Córrego do Meio Complex, Capanema and Fazendão. The Southern System is accessible by road or by spur tracks of the Vitória-Minas railroad, which transports iron ore concentrate, lump, and natural pellet ore to the Tubarão marine terminal (located approximately 600 kilometers away) and domestic steelmakers, as well as third party general cargo.

Iron ore in the Southern System is mined by open pit methods. These ore reserves have high ratios of itabirite ore relative to hematite ore. Itabirite is a quartz-hematite rock with an average iron content ranging from 35% to 65%, requiring concentration to achieve shipping grade, which is above a 64% average iron content. Mines in the Southern System generally process their run-of-mine by means of standard crushing, classification and concentration steps, producing sinter feed, lump ore and pellet feed.

Our Vitória-Minas railroad transports Southern System iron ore to the Tubarão marine terminal located at Vitória in the State of Espírito Santo. The Southern System has train-loading facilities with a daily carrying capacity of 300,000 tons of iron ore. A train composed of two diesel-electrical locomotives and up to 240 gondola ore-cars, makes a round-trip to the marine terminal every 43 hours. The Tubarão/Praia Mole marine terminal complex has a storage capacity of 4.5 million tons of iron ore and pellets. The storage capacity in connection with the complex's two piers, which are 25 meters deep and 600 meters wide, ensures access for ships of up to 365,000 DWT. Our loading system consists of a bucket-wheel reclaimer, conveyor belts and a ship-loader for each pier, which represents a total loading capacity of 32,000 tons per hour to the terminal.

#### Northern System



The Northern System is an integrated mine, railroad and port system, including open pit mines and an ore processing complex. The Northern System is located in the Carajás region, in the States of Pará and Maranhão in the north of Brazil (in the Amazon River basin), on public lands for which we hold mining concessions. The Northern System's reserves are among the largest iron ore deposits in the world, with a life of more than 21 years at 2001 output levels. These reserves are divided into two main ranges (north and south), situated approximately 35 kilometers apart. Iron ore mining activities in the Northern System are currently being conducted in the north range, which is divided into four main mining bodies (N4E, N4WC, N4WN and N5).

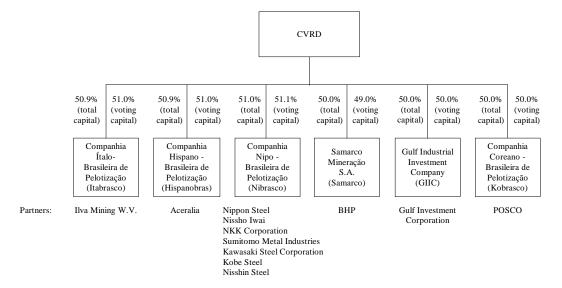
The N4E deposit is the largest operational pit in the Northern Region. Industrial scale mining operations began at this mine in 1985. We selected the N4E mine as the first iron body to be developed in the Northern System because development of the N4E would facilitate access to the N4W and N5 deposits, which could share the N4E beneficiation complex and train loading terminal. We began mining operations at N4W in 1994, opening two pits (N4WC and N4WN). We completed the construction of two in-pit crushing systems located at N4E and N4WN mines in late December 1998. The N4E and N4W mines use conventional open pit benching, with drilling and blasting to open a free face followed by shovel loading. During 1998, we also started operations in the N5 mines (N5W and N5E).

Because of the high iron content (65.4% on average) in the Northern System, we do not have to operate a concentration plant at Carajás. The beneficiation process for creating marketable sinter feed, pellet feed, special fines for direct reduction processes and lump ore consists simply of sizing operations, including screening, hydrocycloning, crushing and filtration. We can therefore produce marketable iron ore in the Northern System at a lower cost than in the Southern System. Output from the beneficiation process consists of sinter feed, pellet feed, special fines for direct reduction processes and lump ore, which is sampled regularly before storage at the Carajás stockyard by automatic sampling systems that conform to ISO 9002 standards. After the beneficiation process, our Carajás railroad transports Northern System iron ore to the Ponta da Madeira marine terminal located at São Luís in the State of Maranhão, on the Atlantic Ocean. The Northern System has train-loading facilities with an aggregate nominal loading capacity of 14,000 tons per hour. A train composed of three diesel-electrical locomotives and 206 gondola ore-cars, each car having a net capacity of 105 tons, makes each 54.5-hour round-trip to the marine terminal. At the Ponta da Madeira marine terminal, a 100 kilometer long natural channel (at least 23 meters deep and 500 meters wide) ensures access for ships of up to 420,000 DWT. With a storage capacity of 3.5 million tons, a loading system consisting of bucket-wheel reclaimers, conveyor belts and single boom ship-loaders at two piers, the marine terminal can handle vessels from 20,000 to 420,000 DWT with no repositioning.

Our complex in Carajás is accessible by road, air and rail. It obtains electrical power at market rates from regional utilities. To support our Carajás operations and to reduce turnover of mining personnel, we have housing and other facilities for the people in a nearby township.

### Pellets

We conduct our pellet business primarily through participations in joint ventures and also at the parent company level, as shown below:



The table below sets forth information regarding attributable pellet production by us and our joint ventures for the periods indicated.

		For the Year Ended December 31,			
Pellet producer		2000	2001		
	(In millions of tons)				
CVRD	4.8	5.0	5.1		
Itabrasco	3.4	3.3	3.3		
Hispanobras	3.6	3.8	3.7		
Nibrasco	6.1	8.5	7.1		
Kobrasco	3.8	4.4	4.2		
Samarco	_	12.7	9.9		
GIIC	_	3.6	2.7		
Total	21.7	41.3	36.0		
Percentage DR pellets	25.9%	23.5%	26.2%		

Except for GIIC, which is in Bahrain, and Samarco, which is in Ponta do Ubú, all of our pelletizing operations are in the Southern System at our Tubarão complex. We acquired Samarco in May 2000, and GIIC in October 2000.

In April 2001, we acquired an additional 4 million tons of annual production capacity of pellets through our acquisition of Ferteco Mineração S.A., known as Ferteco.

In March 2002, we completed the construction of our new São Luís pelletizing plant. Our total capital expenditure for the plant was US\$188 million. The plant is located in our Northern System.

Our pellet activities increase our market for fine and ultrafine iron ore products. We sell pellet feed to our pellet joint ventures at market-based prices. Historically, we have supplied all of the iron ore requirements of our joint ventures located in the Southern System.

The table below sets forth information regarding iron ore shipments to our pellet joint ventures for the periods indicated.

	D		
Joint Venture	1999(1)	2000(1)	2001(1)
	(In n	nillions of to	ons)
Kobrasco	4.1	4.7	4.5
Itabrasco	3.6	3.6	3.6
Hispanobras	4.0	4.1	3.9
Nibrasco	6.6	9.3	7.8
Samarco		1.9	1.9
GIIC	_	2.0	1.7
Total	18.3	25.6	23.4

For the Year Ended

Customers, Sales and Marketing (Iron Ore and Pellets)

We use all of our iron ore and pellets (including our share of joint-venture pellet production) to supply the steelmaking industry. Prevailing and expected levels of demand for steel products affect demand for our iron ore and pellets. Demand for steel products is influenced by many factors, such as expected rates of economic growth.

Historically, we have exported more than two-thirds of our iron ore shipments. We export iron ore products primarily to Asia and Europe, with customers in Japan, China, South Korea and Germany accounting for approximately 53.5% of our total export shipments in 2001. Our 10 largest customers collectively purchased 37.6 million tons of iron ore and pellets from us, representing 41.7% of our 2001 iron ore and pellet shipments and approximately 40% of our total revenues. No individual customer accounted for more than 7.0% of our sales of iron ore products for any of the three years ended December 31, 2001.

We strongly emphasize customer service in order to improve our competitiveness. We work with our customers to understand their principal objectives and then tailor our iron ore to meet specific customer needs. To provide a tailored product, we take advantage of our large number of iron ore mines in order to produce multiple iron ore products possessing different grades of iron, silica and alumina, and varying physical properties, including grain size. We believe that we offer our customers more variety than our competitors in Australia and Canada. This variety helps us offset any disadvantages in relation to competitors who may be more conveniently located geographically. In addition to offering technical assistance to our customers, we operate sales support offices in Tokyo, Brussels, New York and Shanghai. These offices allow us to stay in close contact with our customers, monitor their requirements and our contract performance, and ensure that our customers receive deliveries on schedule. Our central sales office in Rio de Janeiro coordinates the activities of these offices.

### Distribution (Iron Ore and Pellets)

Our ownership and operation of transportation systems designed for the efficient transportation of iron ore products complements our iron ore mining business. We operate an integrated railroad and terminal network in each of our Northern and Southern Systems. This network transports our iron ore products from interior mining locations to the marine terminal and domestic customers. The Vitória-Minas railroad provides the rail link for the Southern System and has a daily carrying capacity of 300,000 tons of iron ore. The Carajás railroad provides the rail link for the Northern System and has a daily carrying capacity of 130,000 tons of iron ore.

Our port and terminal facilities in the Southern and Northern Systems receive iron ore and pellets from our railroads for dispatch onto ocean-going vessels. We shipped a total of 118.0 million tons of iron ore and pellets in 2001. The Tubarão/Praia Mole marine terminal complex, located near the Port of Vitória in the State of Espírito Santo, serves the Southern System. The Vitória-Minas railroad transports ore from iron ore mines in the Southern System directly to the Tubarão terminal and its ship-loading facilities. The Ponta da Madeira marine terminal complex, located near the Port of São Luís in the State of Maranhão, serves the Northern System. The Carajás railroad transports iron ore from the Northern System mines directly to the Ponta da Madeira terminal and its ship-loading facilities.

<sup>(1)</sup> Shipments in 2001, 2000 and 1999 represent iron ore sold and iron ore delivered to the joint ventures on a tolling basis.

We are currently seeking to divest our dry-bulk shipping business due to its overall lack of profitability and to the significant investment we would have to undertake to replace our existing dry-bulk shipping fleet in the future. See *Item 4.B.*, *4.C.*, *and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Logistics—Ports and Terminals—Shipping*.

## Competition (Iron Ore and Pellets)

The international iron ore market is highly competitive. Several large producers dominate this market. The principal factors affecting competition are price, quality, range of products offered, reliability and transportation costs. In 2001, the Asian market (primarily Japan, South Korea and China) and the European market were the primary markets for our iron ore.

Our biggest competitors in the Asian market are located in Australia and include affiliates of Broken Hill Proprietary Company Limited, or BHP, and The Rio Tinto Corporation Plc. Although the transportation costs of delivering iron ore from Australia to Asian customers are generally lower than ours as a result of Australia's geographical proximity, we believe we are able to remain competitive in the Asian market for two principal reasons. First, steel producers generally seek to obtain the types (or blends) of iron ore which can produce the intended final product in the most economic and efficient manner. Our iron ore has low impurity levels which generally lead to lower processing costs. For example, the alumina content of our iron ore is very low compared to Australian ore. Second, steel mills often develop sales relationships based on a reliable supply of a specific mix of iron ore. We have an aggressive marketing policy of meeting our clients' needs to the extent possible, including placing specialized personnel in direct contact with our clients to determine the blend that best suits each particular client. We sell our products FOB from our ports, which means that the invoice price includes delivery at our expense to our ports and no further. In general, our ownership of the process of producing and transporting iron ore to our ports helps ensure that our products get to our ports on schedule and at competitive costs. Consequently, we believe that the sale of our shipping dry-bulk assets will not affect our competitiveness as we have not subsidized shipping costs for those customers who have used our fleet. We believe that third party carriers are available to serve our customers.

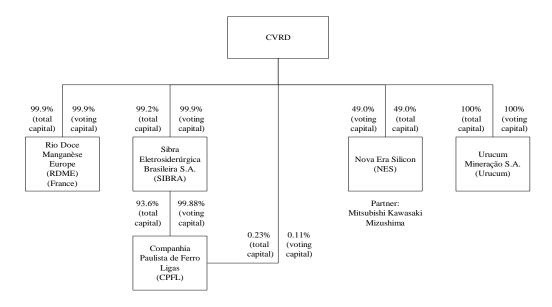
We are competitive in the European market for the reasons we described above, as well as the quality of our Carajás iron ore and the proximity of the Ponta da Madeira port facilities to European customers. Our principal competitors in Europe are:

- Anglo American (U.K.) and Affiliates,
- Iron Ore Co...
- Quebec Cartier Mining Co. (Canada),
- Luossavaara Kiirunavaara AB (Sweden),
- Sociétè Nationale Industrielle et Minière (Mauritania),
- Kumba Resources (South Africa), and
- BHP (Australia), Rio Tinto (UK) and Affiliates.

The Brazilian iron ore market is highly competitive with a wide range of smaller producers. Although pricing is a relevant factor, quality and reliability are important competitive factors as well. We believe that our integrated transportation systems, high-quality ore and technical services make us a strong competitor in domestic sales. Prevailing export market prices, with adjustments negotiated to compensate for lower transport costs to domestic customers, influence iron ore sales in the domestic market.

## Manganese and Ferro-Alloys

We conduct our manganese and ferro-alloy business primarily through affiliates and joint ventures, as shown below:



In 2001, we were the largest Brazilian manganese ore producer, with total shipments of approximately 1.7 million tons. We had US\$315 million in gross revenues in 2001 from manganese ore and ferro-alloy sales.

We produce manganese ore products from the Azul mine in the Carajás region in the state of Pará and from the Urucum mine in the Pantanal region in the state of Mato Grosso do Sul. We operate on-site beneficiation plants at both the Azul and Urucum mines. Both mines are accessible by road and obtain electrical power at market rates from regional electric utilities.

Our manganese mines produce three types of manganese products:

- metallurgical ore used primarily for the production of ferro-alloys,
- natural manganese dioxide suitable for the manufacture of electrolytic batteries, and
- chemical ore used in several industries for the production of fertilizer, pesticides and animal food and used as a pigment in the ceramics industry.

The production of ferro-alloys consumes significant amounts of electricity. The Brazilian government, as part of its energy rationing program, required us as of June 1, 2001 to decrease energy consumption by 25% for ferro-alloy related activities. In June 2001, in response to these governmental measures, we began a plan to reduce our ferro-alloy output in the six-month period ending November 30, 2001, by 46,000 tons, from the previously planned 220,000 tons to 174,000 tons. This reduction represents a revenue loss of US\$26 million. We believe that the remaining production will be sufficient to supply our clients in Brazil and the rest of Latin America, our main ferro-alloys markets. Despite this mandatory temporary reduction, we continue to pursue our long-term plan to expand our ferro-alloy operations. For information on the risks associated with the Brazilian government's energy rationing program, see *Item 3.D. Risk Factors—Risks Relating to Brazil—The Brazilian government's energy rationing program could adversely affect us*.

The table below sets forth information regarding our manganese reserves as of December 31, 2001. The estimates of mineral reserves have been audited and verified by AMEC.

Proven and Probable Reserves				
Туре	Grade(3)			
	(In millions of ton	s)		
Open pit (1)	15.0	44.5		
Stockpile	0.6	49.3		
-	15.6	48.7		
Underground(2)	7.5	47.5		
2 , ,	23.1	45.6		
	Type Open pit (1)	Type         Ore Tonnage(2)           (In millions of ton Open pit (1)         15.0           Stockpile         0.6           15.6         15.6           Underground(2)         7.5		

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- (1) Reported as product wet tons (14.5% moisture content).
- (2) Reported as product dry tons.
- (3) Reported as recoverable product grade.

The table below sets forth information regarding our manganese mines and recent manganese ore production for the periods indicated. The projected exhaustion dates are based on 2001 production levels.

	Commencement of Operations	Projected Exhaustion Date	Our Ownership Interest	<b>Production For</b>	the Year Ended	December 31,
Mine				1999	2000	2001
			(percent)	(in	)	
Azul	1986	2014	100%	0.9	1.4	1.4
Urucum	1976	2035	100%	0.2	0.3	0.3
Total				1.1	1.7	1.7

The table below sets forth information regarding our ferro-alloy production.

Plant	Production Capacity	Production in 2001
	(In thousands of tons per year)	(In thousands of tons)
RDME	140.0	120.0
CPFL/SIBRA	311.6	220.0
NES	45.0	32.0

Prior to December 1999, we owned 50% of Vale Usiminas Participações, S.A. or VUPSA. In December 1999, we agreed to acquire, for a nominal sum, the 50% stake in VUPSA that we did not already own from our former partner, Usinas Siderúrgicas de Minas Gerais S.A., known as Usiminas. In exchange for our agreement to acquire the Usiminas interest in VUPSA, Usiminas was released from some of its obligations with respect to the debt of Companhia Paulista de Ferro Ligas, or CPFL, and Sibra Eletrosiderúrgica Brasileira S.A., or SIBRA, two leading Brazilian producers of ferro-alloys, which were owned by Ferro Ligas do Norte S.A., a subsidiary of VUPSA. This acquisition enables us to integrate our manganese mining operations with ferro-alloy producing plants. On December 31, 2000, after a corporate reorganization, we became the direct owner of SIBRA, which in turn owns CPFL.

### **Non-Ferrous Minerals**

Our non-ferrous minerals business segment includes the production of gold and other non-ferrous minerals, such as kaolin and potash. We also include our copper exploration efforts in the non-ferrous category.

The table below sets forth information regarding our non-ferrous revenues and sales by geographic market for the periods indicated.

	For the Year Ended December 31,			
	1999	2000	2001	
	(1	In millions of	US\$)	
Revenues classified by geographic destination				
Export sales:				
Latin America	\$ —	\$ —	\$ —	
United States	139	156	139	
Europe	_	35	33	
Japan	_	4	_	
Asia, other than Japan	4	3	1	
	143	198	173	
Domestic sales	96	90	79	
Total	\$ 239	\$ 288	\$ 252	
Revenues classified by category				
Gold	\$ 155	\$ 156	\$ 139	
Potash	84	85	71	
Other minerals	_	47	42	
Total	\$ 239	\$ 288	\$ 252	

## Gold

We conduct our gold business primarily at the parent company level and each of our gold mines is wholly owned.

We started gold operations in 1984 and, at December 31, 2001, we operated three gold mines. We are one of the largest gold producers in Latin America, with a total gold production of 513,300 troy ounces of refined gold for 2001. We were responsible for approximately 32% of all gold produced on an industrial scale in Brazil during 2001. Gold sales generated US\$139 million of gross operating revenues in 2001.

The table below sets forth information regarding estimated gold proven and probable reserves as of December 31, 2001. The estimates of mineral reserves have been audited and verified by AMEC.

	Proven and Probable Reserves						
Mine(1)	Ore Type(2)	Ore Tonnage (Mt)	Au Grade (g/t)	Contained Gold (t)	Metal Recovery(%)	Recovera	able Gold M ozt (3)
		(Millions of tons)	(gram/ton)	(tons)	(percent)	(tons)	(Millions of troy ounces(4)
Igarapé Bahia(4)	Sulfide CIP Sulfide	0.78	3.80	2.96	90	2.67	0.086
	Stockpile	0.06	3.51	0.21	90	0.19	0.006
	Oxide HL	0.79	1.28	1.01	70	0.71	0.023
	Oxide Stockpile	0.43	1.05	0.45	70	0.32	0.010
Total-Igarapé		2.06	2.25	4.64	84	3.88	0.125
Fazenda Brasileiro		2.33	5.18	12.08	94.6	11.43	0.367
Itabira	CIL in situ	0.34	2.05	0.70	96	0.67	0.022
	S/P HL	0.10	0.55	0.06	60	0.03	0.001
Total-Itabira		0.45	1.70	0.76	_	0.71	0.003
Total		4.84	3.61	17.48	92	16.02	0.495

- (1) Each mine listed is 100% owned by the Company. All mines are open-pit except Fazenda Brasileiro, which is an underground operation.
- (2) CIP refers to Carbon-in-Pulp, HL refers to Heap Leaching, S/P refers to Stockpile, and CIL refers to Carbon-in-Leach.
- (3) ozt refers to troy ounces. One troy ounce equals 31.103 grams.
- (4) The Igarapé Bahia mine is exhausted at the date of this annual report although we are currently studying drilling in deeper zones. The stated reserve equals the production from January 1, 2002 through completion of mining.

The table below sets forth information regarding our gold mines and recent gold production for the periods indicated. The projected exhaustion dates are based on 2001 production levels.

					Pı	roduction		
Mine	Commencement of Operations	Projected Exhaustion Date	For the		he Year Ended December 31,			
			1	999		2000		2001
				(Th	ousands	s of troy our	ces)(1)	
Igarapé Bahia	1991	2002		357.5		333.9		328.3
Fazenda Brasileiro	1984	2009		141.2	,	154.6		165.2
Almas	1985	2001		16.0	)	13.2		0.6
Caeté	1996	2001		17.4	•	11.0		0.4
Itabira	1984	2003		20.0	1	22.4		18.8
Total				552.1		535.1		513.3
Average total cash cost of production (US\$ per troy ounce)(1)			US\$	143	US\$	165	US\$	146

<sup>(1)</sup> One troy ounce equals 31.103 grams.

Our gold mines are located in the states of Minas Gerais, Bahia and Pará. All gold mines are open-pit, except for Fazenda Brasileiro, which is underground. Each mine includes an on-site processing facility to produce *doré* bars from raw ore. We ship *doré* bars to a third party refinery for remelting and chemical treatment, which yields gold bars with 99.99% purity. Our gold is insured from the time we place it in its mine vaults until it reaches the customer.

As of December 31, 2001, our proven and probable gold reserves represented three years of production at 2001 output levels. In 2001, we had expenditures of US\$5.7 million for gold exploration and resource development, including US\$0.4 million related to prospecting for new deposits and US\$4.7 million directed to the extension of existing reserves. Of these expenses, US\$0.6 million were reimbursed under the Mineral Risk Contract. See—

Current Copper Prospects—Mineral Risk Contract.

Drilling has indicated that Igarapé Bahia has gold mineralization at distinct levels. Mineralization at the uppermost level, which consists primarily of oxidized gold ore, was depleted at the date of this annual report. We are currently studying the commencement of mining in the second and third ore zones to produce copper concentrate with gold credit. The second zone is a transition zone which changes from oxide-based ore to sulfide, and the third zone consists entirely of copper sulfide ore.

# Kaolin

We conduct our kaolin business through our stake in Pará Pigmentos S.A., which began operations in August 1996. Our total and voting interests in Pará Pigmentos are 75.5% and 80.0%, respectively. Our partners in Pará Pigmentos are Mitsubishi Corporation and International Finance Corporation.

Kaolin is a fine white aluminum silicate clay used in the paper, ceramic and pharmaceutical industries as a coating agent and filler. In 2001, Pará Pigmentos reported revenues of US\$39 million and a net loss of US\$1.7 million. Currently, Pará Pigmentos has approximately US\$61 million of long-term debt outstanding, of which we guarantee US\$50 million. Pará Pigmentos is conducting a four phased investment program to increase production capacity in response to an expected increase in the demand for kaolin.

The table below sets forth the schedule for the investment program which Pará Pigmentos expects to carry out through 2007:

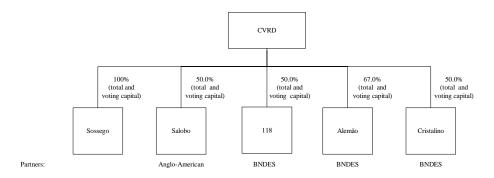
Investment Phase	Production	T	otal Investment	Expected Date of Completion
	kt/year	(In	millions of US\$)	
I	320	\$	140.0	complete
II	600		29.0	complete
III	800		24.4	2003
IV	1,000		26.3	2007

## Potash

Potash is an important raw material used in the production of fertilizers. We lease a potash mine in the state of Sergipe from Petróleo Brasileiro S.A., the Brazilian oil company. It is the only mine of this type in Brazil and has a current capacity of 600,000 tons per year. We had gross revenues of US\$70.9 million from potash sales in 2001.

## **Current Copper Prospects**

At December 31, 2001, our copper mining exploration and development projects were conducted through the following joint ventures:



The table below sets forth information, at December 31, 2001, regarding the status and potential productivity of our copper (Cu) prospects, all but one of which features a gold (Au) by-product:

Project Status		Total Expected Other Mineral Deposits (Millions of tons)	Capital Expenditures (In millions of US\$)		Anticipated Start-up Date
Sossego	Full feasibility May 2001	313 at 1.02% Cu and 0.3 g/t Au	\$	383	2004
Salobo	Pre-feasibility in progress Pre-feasibility	784 at 0.96% Cu and 0.6 g/t Au		1,005	2007
Project 118	in progress	100 at 0.80% Cu		140	2004

Project	Status	Other Mineral Deposits  (Millions of tons)	Capital Expenditures (In millions of US\$)	Anticipated Start-up Date
	Advanced	170 at 1.60% Cu		
Alemão	Exploration	and 0.90 g/t Au	550	2006
	Advanced	300 at 0.49% Cu		
Cristalino	Exploration	and 0.2 g/t Au	500	2006

In addition, we and BNDES are prospecting the Carajás region for new copper exploration projects. See — *Exploration—Mineral Risk Contract*.

### **Exploration**

As part of our mineral prospecting and development activities in Brazil, we have acquired extensive experience in exploration techniques and processes specifically designed for use in tropical areas of the world. Our current mineral exploration efforts are in Brazil and focus primarily on copper. Expenditures for our mineral exploration program in 2001 were US\$43 million and the budget for 2002 is US\$40 million.

Since 1998, we have focused our exploration efforts on areas where geological knowledge was more advanced, focusing primarily on gold and copper, and let lapse those claims we did not consider economically attractive. As a result, our undeveloped acreage claims decreased from approximately 31.2 million hectares as of December 31, 1997, to 7.0 million hectares as of December 31, 2001.

#### Mineral Risk Contract

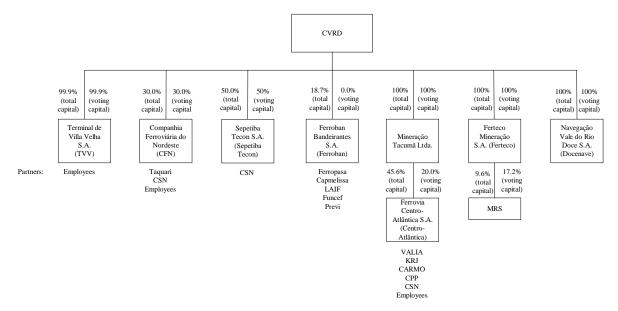
We and BNDES entered into a Mineral Risk Contract in March 1997, relating to prospecting authorizations for mining regions where drilling and exploration are still in their early stages. The Mineral Risk Contract provides for the joint development of certain unexplored mineral deposits in approximately two million identified hectares of land in the Carajás region, which is part of the Northern System, as well as proportional participation in any financial benefits earned from the development of such resources. Iron ore and manganese deposits already identified and subject to development were specifically excluded from the Mineral Risk Contract.

Pursuant to the Mineral Risk Contract, we and BNDES each agreed to provide US\$205 million, which represents half of the US\$410 million in expenditures estimated as necessary to complete geological exploration and mineral resource development projects in the region over a period of five years. Under certain circumstances, this period may be extended for an additional two years. We will oversee these projects and BNDES will advance us half of our costs on a quarterly basis. Under the Mineral Risk Contract, as of December 31, 2001, we and BNDES each had remaining commitments to contribute an additional US\$89 million toward exploration and development activities. We both expect to fund a portion of these contributions each year through 2001. In the event that either of us wishes to conduct further exploration and development after having spent such US\$205 million, the contract provides that each party may either choose to match the other party's contributions, or may choose to have its financial interest proportionally diluted. If a party's participation in the project is diluted to an amount lower than 40% of the amount invested in connection with exploration and development projects, then the Mineral Risk Contract provides that the diluted party will lose (1) all the rights and benefits provided for in the Mineral Risk Contract and (2) any amount previously contributed to the project.

Under the Mineral Risk Contract, BNDES has agreed to compensate us for our contribution of existing development and ownership rights in the Carajás region through a finder's fee production royalty on mineral resources that are discovered and placed into production. This finder's fee is equal to 3.5% of the revenues derived from the sale of gold, silver and platinum group metals and 1.5% of the revenues derived from the sale of other minerals, including copper, except for gold and other minerals discovered at Serra Leste, for which the finder's fee is equal to 6.5% of revenues.

## Logistics

At December 31, 2001, our logistics business, which comprises the transportation of third party products and passengers, operated through the following subsidiaries and joint ventures:



The table below sets forth information regarding our third party logistics revenues and sales by geographic market for the periods indicated.

	1999	2000	2001
		(in millions of US\$)	
Export market			
Latin America	13	30	65
United States	34	64	21
Europe	31	75	44
Middle East	3	6	4
Japan	9	15	10
Asia, other than Japan	9	5	3
Others	1	_	_
	100	195	147
Domestic sales	318	403	344
_	418	598	491

## Railroads

Vitória-Minas Railroad. The Vitória-Minas railroad, in the Southern System, originates near the city of Belo Horizonte and our Itabira mines in the State of Minas Gerais. We operate this railroad under a 30-year renewable concession granted by the Brazilian government in July 1997. This railroad extends 905 kilometers to our Tubarão marine terminal located near the Port of Vitória in the state of Espírito Santo. The Vitória-Minas railroad consists of two lines of track extending for a distance of 601 kilometers to permit continuous railroad travel in opposite directions, and single-track branches of 304 kilometers. Industrial manufacturers are located near this area and major agricultural regions are adjacent and accessible to the Vitória-Minas railroad. The Vitória-Minas rolling stock fleet consists of approximately 197 locomotives, 7,603 ore-cars, 5,639 cars for general cargo and 61 passenger cars. In 2001, the Vitória-Minas railroad carried a total of 109.9 million tons of iron ore and other cargo, of which 78.6 million tons consisted of cargo transported for third parties. The Vitória-Minas railroad also carried approximately one million passengers in 2001.

The principal cargo of the Vitória-Minas railroad consists of:

- iron ore, carried for us,
- steel, coal and pig iron carried for steel manufacturers located along the railroad, and
- limestone carried for steel mills located in the states of Minas Gerais and Espírito Santo.

We charge market rates for third party freight, including pellets, aluminum and pulp and paper originating from joint ventures and other enterprises in which we do not own 100% of the equity interest. Market rates vary based upon the distance traveled, the kind of product and the weight of the freight in question.

The table below sets forth information regarding the cargo that the Vitória-Minas railroad transported for the periods indicated.

For the Year Ended December 31,				
1999	2000	2001		
(Thousands of tons)				
53,292	56,986	53,295		
4,745	5,542	5,621		
4,223	4,905	4,892		
2,042	2,585	2,688		
2,149	2,609	1,551		
1,655	2,410	2,377		
525	854	1,048		
285	334	372		
4,143	4,284	6,801		
73,059	80,509	78,645		
26,322	29,338	30,162		
726	756	_		
722	1,281	1,072		
27,770	31,375	31,234		
100,829	111,884	109,879		
	1999 (T) 53,292 4,745 4,223 2,042 2,149 1,655 525 285 4,143 73,059 26,322 726 722 27,770	1999 2000 (Thousands of tons) 53,292 56,986 4,745 5,542 4,223 4,905 2,042 2,585 2,149 2,609 1,655 2,410 525 854 285 334 4,143 4,284 73,059 80,509  26,322 29,338 726 756 722 1,281 27,770 31,375		

Carajás Railroad. We operate the Carajás railroad under a 30-year renewable concession granted by the Brazilian government in June 1997. This railroad, located in the Northern System, starts at our Carajás iron ore mine in the state of Pará, and extends 892 kilometers to our Ponta da Madeira marine terminal facilities located near the Port of São Luís in the state of Maranhão. The Carajás railroad consists of one line of track, with spur tracks and turn-outs to permit the passage of trains in opposite directions. The Carajás fleet consists of approximately 88 locomotives, 4,006 ore-cars, 745 cars for general cargo and 37 passenger cars. In 2001, the Carajás railroad carried a total of 57.2 million tons of iron ore and other cargo (of which 6.3 million tons, or 11%, consisted of cargo transported for third parties). The Carajás railroad also carried approximately 431,000 passengers in 2001.

The table below sets forth information regarding the cargo the Carajás railroad transported for the periods indicated.

_	For the Year Ended December 31,				
Cargo	1999	2000	2001		
	(	Thousands of ton	s)		
Iron ore					
CVRD Group	41,683	45,353	49,475		
Third party	2,246	2,544	3,229		

		For the Year Ended December 31,					
Cargo	1999	2000	2001				
		(Thousands of tons	s)				
Manganese ore							
CVRD Group	807	1,339	1,411				
Pig iron	1,321	1,526	1,879				
Vehicles	120	142	86				
Fuels	383	394	472				
Soy beans	426	491	515				
Other	114	127	158				
Total	47,100	51,916	57,225				

Other Investments. We hold a 20% interest in the voting capital of Centro-Atlântica, which operates the central east regional railway network of the Brazilian national railway system under a 30-year renewable concession granted in 1996. The central east network contains approximately 7,000 kilometers of track extending into the states of Sergipe, Bahia, Espírito Santo, Minas Gerais, Goiás, Rio de Janeiro and Distrito Federal. It connects with our Vitória-Minas railroad near the cities of Belo Horizonte and Vitória. Centro-Atlântica currently operates on the same track gauge as our Vitória-Minas railroad. In 2001, Centro-Atlântica reported net revenues of US\$101.4 million, and a net loss of US\$47 million.

We also hold a 30% stake in the Malha Nordeste railroad through Companhia Ferroviária do Nordeste, known as CFN. The Malha Nordeste railroad operates under a 30-year concession granted by the Brazilian government in December 1997. Malha Nordeste is an existing rail line with 4,342 kilometers of track extending into the states of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas and Sergipe. The Malha Nordeste line comes close to our Carajás line in the Northern System but is built on a narrower gauge. The Malha Nordeste line requires significant modernization, and the owners are currently discussing the amount of investment required to effect the modernization. In 2001, CFN reported net revenues of US\$7.8 million and a net loss of US\$26.3 million.

We are part of a consortium which won the auction for a 30-year concession for the Malha Paulista railroad in November 1998. We currently hold 18.7% of the total capital in this consortium, which was incorporated as Ferrovias Bandeirantes S.A., or Ferroban. We entered into this concession, which is renewable for an additional 30-year period, for a price of US\$205.7 million. Ferroban is a 4,236 kilometer railroad linking the states of São Paulo, Minas Gerais and Paraná. In 2001, Ferroban reported net revenues of US\$63 million and a net loss of US\$44.5 million.

In 2001, we acquired 100% of Ferteco Mineração S.A. Ferteco owns 9.6% of the total capital and 17.2% of the voting capital in MRS Logística S.A. MRS is a 1,612 kilometer railroad which links the states of Rio de Janeiro, São Paulo and Minas Gerais with a capacity to transport 80 million tons per year. MRS operates under a 30-year renewable concession granted by the Brazilian government in November 1996.

The Brazilian government has the option to extend our railroad concessions when they expire. The table below sets forth the expiration date for each of our concessions:

Railroad	Concession Expiration Date
Centro-Atlântica	August 2026
MRS	December 2026
Vitória-Minas	
Carajás	June 2027
Malha Nordeste	December 2027
Malha Paulista	

### **Ports and Terminals**

We operate ports and terminals principally as a means to complete the distribution of our iron ore and pellets to ocean-going vessels serving the export market. See —Ferrous Minerals—Pellets—Distribution—Iron Ore and Pellets. We also use our ports and terminals to handle third party cargo. In 2001, 30% of the cargo handled by our ports and terminals represented cargo handled for third parties.

Tubarão/Praia Mole Marine Terminal. The Tubarão/Praia Mole marine terminal complex, which covers an area of approximately 18 square kilometers, is located near the Port of Vitória in the State of Espírito Santo and has two piers. Pier I can accommodate two vessels at a time, one of up to 80,000 DWT on the southern side and one of up to 120,000 DWT on the northern side. Pier II can accommodate one vessel of up to 300,000 DWT at a time. In Pier I there are two shiploaders which can load up to a combined total of 14,000 tons per hour. In Pier II there are two shiploaders that work alternately and can each load up to 16,000 tons per hour. We operate a grain terminal, accessible by highway in the Tubarão area, with an annual capacity of 1.5 million tons and a maximum loading speed of 1,500 tons per hour. We also operate a bulk liquid terminal with a capacity of 2.0 million cubic meters. There are two berths in the Tubarão terminal. One is for transportation of grains, with a capacity of 3 million tons a year, and the other is for the transportation of general cargo and fertilizers.

The table below sets forth information on cargo shipped through our Tubarão/Praia Mole marine terminal by tonnage for the periods indicated.

	For the Yea	r Ended Decemb	oer 31,
Cargo	1999	2000	2001
	(Tho	ousands of tons)	
Iron ore and pellets			
CVRD Group	42,017	39,397	46,262
Third party	23,433	31,629	20,925
Coal	7,497	8,252	8,250
Grain	1,302	1,889	2,073
Coking coal	603	999	1,016
Pig iron	1,867	2,081	1,862
Fertilizers	405	334	513
Other	3,023	4,770	5,039
Total	80,147	89,351	85,940

Ponta da Madeira Marine Terminal. The Ponta da Madeira marine terminal complex is located near the Port of São Luís in the state of Maranhão. The Ponta da Madeira port facilities can accommodate two vessels. Pier I can accommodate vessels displacing up to 420,000 DWT. Pier II can accommodate vessels of up to 155,000 DWT. The two berths have a maximum loading rate of 16,000 tons per hour at Pier I and 8,000 tons per hour at Pier II.

The table below sets forth information on cargo shipped through our Ponta da Madeira marine terminal by tonnage for the periods indicated.

	For the Y	Year Ended Decei	mber 31,
Cargo	1999	2000	2001
	<b>(T</b> )	Thousands of tons	s)
CVRD Group			
Iron ore	41,531	46,178	49,351
Manganese ore	787	1,293	1,513
Third Party			
Pig iron	1,223	1,533	1,879
Soy beans	451	561	622
Total	43,992	49,565	53,364

Other Investments. In September 1994, we licensed the Inácio Barbosa Maritime Terminal, a marine terminal located in the state of Sergipe, near our potash mine. Under the terms of the ten-year agreement, we entered into with Sergiportos, a state-owned port company, we receive 40% of the net operating profit of the terminal and must manage the terminal.

In May 1998, we entered into a 25-year lease for the Capuaba marine terminal in Vitória, in the state of Espírito Santo. We shipped 1,818,000 tons cargo during 2001, and 1,833,000 tons of cargo during 2000.

In September 1998, we acquired a 50% indirect interest in the lease of the Sepetiba container terminal, operated by Sepetiba Tecon S.A. Companhia Siderúrgica Nacional, or CSN, holds the remaining 50% of Sepetiba Tecon. The lease has a term of 25 years and we can renew it for an additional period of 25 years. The price for the concession was approximately US\$79 million, of which we have already paid US\$33 million. The remainder is due in 276 monthly installments starting after the completion of certain investments by Companhia Docas do Rio de Janeiro required under the concession contract. We expect payments to start in January 2003.

## Shipping

We are currently seeking to divest our interests in our dry-bulk shipping business. In February 2002, Navegação Vale do Rio Doce S.A., known as Docenave, sold six of its carrier vessels, with a total capacity of 592,240 DWT, to Empresa Naviera Elcano, S.A., a Spanish company, for US\$53 million. Docenave subsequently sold another three vessels for US\$7.5 million. We intend to sell Docenave's remaining dry-bulk assets in the future, but have reached no agreement regarding this sale to date.

The table below sets forth information on the cargo our shipping operations transported for the periods indicated.

_		ear Ended Dece	ember 31,
Cargo	1999	2000	2001
	(Tl	nousands of ton	is)
Iron ore			
CVRD Group	1,328	3,058	7,179
Third party	12,514	15,608	7,748
Coal	6,541	7,452	3,824
Other	8,142	9,031	7,036
Total	28,525	35,149	25,787

Major customers of Docenave in 2001 included steelmakers (iron ore exports), Alunorte (domestic bauxite purchases) and Brazilian steelmakers (coal imports).

Competition in the logistics industry. The lower costs of rail transport compared to road transport costs in the routes served by the Carajás railroad restrict the competition. Competition with the Vitória-Minas railroad is limited with respect to its principal minerals and bulk products cargo due to the comparative cost advantage of rail transport over road transport for the same routes. The local trucking industry provides competition for the Vitória-Minas railroad with respect to non-bulk cargo. The Centro-Atlântica railroad competes primarily with an established trucking industry to carry freight in the region it serves.

The Ponta da Madeira marine terminal does not face any significant competition due to its geographic distance from other comparable marine terminals and to its direct link with the Carajás railroad. The Tubarão/Praia Mole marine terminal faces limited competition for most types of cargo due to its direct link with the Vitória-Minas railroad. However, with respect to some types of cargo and origins, it encounters competition from the Port of Rio de Janeiro and the Port of Santos.

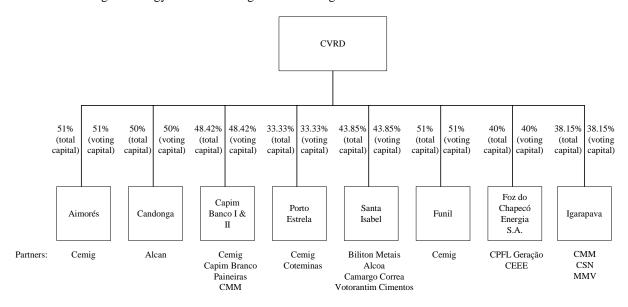
Our shipping services compete with a wide variety of international bulk shipping companies. Competition for tonnage can be quite intense. It depends principally on price, as well as the size, age, condition and acceptability of a vessel and its operator to the customer. Varying economic factors can cause wide swings in freight rates and sudden

shifts in traffic patterns. Vessel redeployment and new vessel construction can also lead to an overcapacity of vessels offering the same service or operating in the same market.

## **Energy**

In 2001 and 2000, we consumed 12.5 TWh and 13.8 TWh of electricity, respectively. Energy management and supply has become a priority for us, driven both by the Brazilian government's privatization program of the industry, and by the risk of rising electricity prices and electricity rationing due to energy shortages, such as the one Brazil experienced in the second half of 2001. We currently perceive favorable investment opportunities in the Brazilian electricity sector and are taking advantage of them to invest in the hydroelectric power generation projects discussed below. These projects may sell their production to third parties in the power market, and, as a result, our energy department will be engaged in wholesale marketing activities. Our energy business is comprised of the sale but not the delivery of electricity. We may use some of the electricity from these projects for our internal needs. As we are a large consumer of electricity, we expect that investing in the energy business will help protect us against electricity price volatility.

We are entering the energy business through the following investments:



Among our partners in these investments, Companhia Energética de Minas Gerais, known as Cemig and Companhia Estadual de Energia Elétrica, known as CEEE, are state-government controlled companies. Cemig Capim Branco Energia S.A. is an affiliate of Cemig. Alcan Alumínio do Brasil Ltda., known as Alcan, is an affiliate of Alcan Inc. Comercial e Agrícola Paineiras Ltda., known as Paineiras, is an affiliate of Suzano Participações S.A.. Billiton Metais S.A. is a wholly-owned subsidiary of BHP Billiton. CPFL Geração is an affiliate of CPFL-Companhia Paulista de Força e Luz. Companhia Mineira de Metais, known as CMM, and Votorantim Cimentos S.A. are affiliates of Votorantim Participações S.A. Alcoa Alumínio S.A., known as Alcoa, is an affiliate of Alcoa Inc. Mineração Morro Velho Ltda., known as MMV, is an affiliate of Anglo American Brasil Ltda., which in turn is affiliated with Anglo American Plc. Companhia de Tecidos do Norte de Minas, known as Coteminas, is affiliated with Coteminas International Ltd.

The table sets forth the information regarding our power generation projects.

Project	Commencement of Operation	Our Ownership Interest	Our Total Projected Our Total Investment as of Investment as of December 31, of Dec			Projected Investment as of December 31, 2002	
		(percent)	(in MW)		(in million	s of US\$	)
Igarapava(1)	. January 1999	38.1%	210	US\$	88.1	US\$	88.1

Project	Commencement of Operation	Our Ownership Interest	Projected Capacity	Our Total Investment as of December 31, 2001	Our Total Projected Investment as of December 31, 2002
		(percent)	(in MW)	(in millions	s of US\$)
Porto Estrela(2)	September 2001	33.3	112	19.2	19.7
Aimorés(3)	December 2003(7)	51.0	330	27.4	99.2
Candonga(3)	November 2003(7)	50.0	140	7.7	42.1
Funil(1)	December 2002(7)	51.0	180	22.3	51.2
Capim Branco I(4)	February 2005(7)	48.4	240	0.5	63.4
Capim Branco II(4)	July 2005(7)	48.4	210	0.2	75.8
Foz do Chapecó(5)	November 2006(7)	40.0	855	0.4	202.3
Santa Isabel(6)	August 2006(7)	43.9	1,087	_	_

O . T. 4.1

- (1) Located in Rio Grande, on the border between São Paulo and Minas Gerais.
- (2) Located in Santo Antonio river, in the state of Minas Gerais.
- (3) Located in Rio Doce basin, in the state of Minas Gerais.
- (4) Located in Araguari river, in the state of Minas Gerais.
- (5) Located in Uruguai river, on the border of the states of Santa Catarina and Rio Grande do Sul.
- (6) Located in Araguaia river, on the border of the states of Tocantins and Pará.
- (7) Projected date of commencement of operations of the first unit of the project.

Our total investment in the hydroelectric projects at Igarapava, Porto Estrela, Funil, Candonga, Aimorés, Capim Branco I, Capim Branco II and Foz do Chapecó is estimated at US\$642 million. We cannot assure you that the aggregate cost will not escalate or that the projects will be completed on schedule.

Due to the energy shortage in 2001, and in response to the Brazilian government's energy rationing program, we temporarily reduced our aluminum and ferro-alloy production. For a description of these measures, see *Item 3.D. Risk Factors—Risks Relating to Brazil—The Brazilian government's energy rationing program could adversely affect us, Item 4.B., 4.C., and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Lines of Business—Ferrous Minerals—Manganese and Ferro-Alloys, —Holdings—Aluminum Business—Aluminum—Valesul.* 

## **Holdings**

Our holdings are comprised primarily of our aluminum operations and our interests in the steel industry. We are currently pursuing the sale of some of our interests in the steel industry.

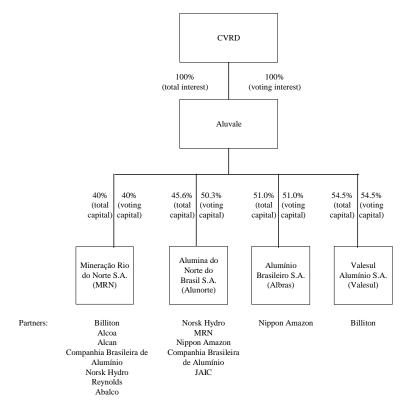
The table below sets forth information regarding our holdings revenues and sales by geographic market for the periods indicated.

_	For the Year Ended December 31,							
_	1999		2000			2001		
_	Pulp & Paper	Alu	ıminum	Pulp & Paper		uminum	Pulp & Paper	Aluminum
	(In millions of US\$)							
Export market								
Latin America\$		\$	5	\$ —	\$	23	\$ —	\$ 9
Europe	39		146	48		237	_	173
Middle East			_	_		16	_	_
Japan			94	_		34	_	12
United States	62		23	73		39	47	73

For the Year Ended December 31, 1999 2000 2001 Pulp & Pulp & Pulp & **Paper** Aluminum **Paper** Aluminum Paper Aluminum (In millions of US\$) 2 15 Asia, other than Japan..... 50 Others ..... 101 318 121 351 47 282 10 62 21 12 8 1 Domestic sales..... \$ 111 \$ 380 \$ 142 \$ 363 \$ 55 \$ 283

## Aluminum Business

At December 31, 2001, our aluminum business operated through the following subsidiaries and joint ventures:



Our wholly-owned subsidiary, Aluvale, manages our aluminum operations through participation in joint ventures that engage in:

- mining bauxite,
- refining bauxite into alumina, and
- using alumina to produce primary aluminum and aluminum alloys.

Aluvale's principal operating activity consists of marketing the aluminum produced by Albras—Alumínio Brasileiro S.A., or Albras, and Valesul Alumínio S.A., or Valesul. In 2001, gross revenues from aluminum products totaled US\$284 million.

### Bauxite

MRN, the largest bauxite producer in Latin America and one of the largest in the world, produces bauxite for sale to its joint venture partners. Excess production may be sold to third parties. MRN operates two open-pit bauxite mines which produce high quality bauxite. In addition, MRN controls substantial additional high quality bauxite resources which it believes can be produced economically in the future. MRN had net revenues of US\$211 million and net income of US\$81 million in 2001.

MRN's mines are located in the northern region of the state of Pará.

The table below sets forth information regarding MRN's bauxite reserves as of December 31, 2001. The estimates of mineral reserves have been audited and verified by AMEC.

	Prove			
Mine	Type	Ore Tonnage	Grade	
		(Millions of tons)	(% A1203)	
Mineração Rio do Norte(2)	Open pit	146.6	50.6	

- (1) Reported as recoverable product.
- (2) Includes two active mines.

Operations at MRN's mines commenced in 1979 and the proven and probable reserves are projected to exhaust in 2015 at 2001 production levels. For 1999, 2000 and 2001, production equaled 11.0, 11.2 and 10.7 million tons, respectively.

MRN operates ore beneficiation facilities at its mines, which are connected by rail to a loading terminal and port facilities on the Trombetas River. The Trombetas River is a tributary of the Amazon River and MRN's port facilities can handle vessels of up to 50,000 DWT. MRN owns and operates the rail and the port facilities serving its mines. The MRN bauxite mines are accessible by road from the port area and obtain electricity from their own thermoelectric power station.

MRN is undertaking an expansion of its capacity from 11.0 million tons to 16.3 million tons in 2003. The cost of this expansion is estimated at US\$206 million.

#### Alumina

Alunorte began operations in July 1995 and produces alumina by refining bauxite which MRN supplies. The Alunorte plant has a production capacity of 1.5 million tons of alumina per year. In 2001, it produced 1.6 million tons. Alunorte sells the major portion of its production to Albras, Valesul and Aluvale for the production of aluminum. The Alunorte plant is located near Belém in the state of Pará next to Albras's aluminum production facilities. This allows Alunorte and its principal customer to share infrastructure and other resources. Alunorte had net revenues of US\$294 million and net loss of US\$13 million in 2001.

With the exception of MRN, each Alunorte joint venture partner must purchase on a take-or-pay basis all alumina produced by Alunorte in proportion to its respective interest. MRN also has the right, but not the obligation, to purchase its share of Alunorte's production. The joint venturers each pay the same price, which is determined by a formula based on prevailing world market prices of alumina and aluminum. In the aggregate, we are committed to take-or-pay 437,214 metric tons per year of alumina produced by Alunorte, which at a market price of US\$176.08 per metric ton at December 31, 2001, represents an annual commitment of US\$77 million.

In 2000, Alunorte's partners agreed to contribute an additional US\$126 million in equity capital to expand Alunorte's capacity from 1.5 million tons of alumina per year to 2.3 million tons by 2002, a project which is expected to cost approximately US\$286 million. Our share of this contribution is US\$42 million to be paid over six installments. Due to this contribution, our equity interest in Alunorte will be diluted to 44.4% of the total capital by 2002, although our voting interest will remain unchanged at 50.3%.

### Aluminum

Albras and Valesul each produce aluminum using alumina which Alunorte supplies. Alunorte has supplied all of Albras's alumina requirements since October 1995. Albras produces aluminum ingots and Valesul produces aluminum ingots, slabs, bars, billets and alloys. Aluminum is produced from alumina by means of a continuous electro-chemical process which requires substantial amounts of electricity.

### Albras

The Albras plant is one of the largest aluminum plants in Latin America, with a capacity of approximately 406,000 tons per year. Albras started its operations in 1985 at a plant located near Belém in the state of Pará. Albras had net revenues of US\$472 million and net income of US\$8 million in 2001.

The Albras joint venture partners must purchase on a take-or-pay basis all aluminum produced by Albras in proportion to their ownership interests which represents an annual commitment from us of US\$256 million. See *note* 15(d) *to our consolidated financial statements*. We generally market our share of Albras's output in international export markets.

The table below sets forth information regarding Albras's recent aluminum production and our recent purchases from Albras.

	For the Year Ended				
	]				
Aluminum	1999	2000	2001		
	(Th	ousands of ton	s)		
Albras production	358.0	366.0	333.0		
Our purchases from Albras	183.0	187.0	167.0		

As of December 31, 2001, Albras had US\$532 million of long term outstanding debt, of which US\$162 million was denominated in Japanese yen (approximately 50% of which was hedged into U.S. dollars). To reduce the impact of price fluctuations and to assure adequate cash flow, Albras engages in hedging activities from time to time, usually through one-year forward sales. See *Item 11. Quantitative and Qualitative Disclosures About Market Risk—Commodity Price Risk*.

In 2001, Albras obtained a financing package with BNDES aimed at financing the expansion of the Albras plant from a capacity of approximately 366,000 tons per year to a capacity of approximately 406,000 tons per year. The total cost of this project which was completed in the fourth quarter of 2001 was US\$57 million. Consequently, Albras' production capacity increased by 40,000 tons.

*Electricity.* The production of aluminum requires a continuous flow of substantial amounts of electricity. Albras purchases electrical power from Eletronorte, a state-owned electric power utility. Eletronorte generates electricity at the Tucuruí Hydroelectric Power Plant located on the Tocantins River. This plant is the sole source of electrical power in the region in the quantities required for Albras's operations. Albras consumes approximately one-quarter of the constant (year round) output of the Eletronorte plant.

We currently benefit from a contract between Albras and Eletronorte pursuant to which Albras is able to purchase electricity at very favorable rates. This contract is scheduled to expire in 2004. We cannot assure you that we will be able to renew this contract on the same or similarly favorable terms. We, together with other aluminum producers in the region, are currently investigating alternative electricity sources. See—*Energy*.

Due to the energy shortage and the Brazilian government's energy rationing program which required an energy consumption decrease of 25% for aluminum related activities, we reduced 2001 aluminum production at Albras by 46,000 tons, from the previously planned 379,000 tons. In January 2002, Albras began operations at full production capacity, which has reached 406,000 tons, following the completion of the Albras plant expansion project. For information on the risks associated with the Brazilian government's energy rationing program, see *Item 3.D. Risk Factors—Risks Relating to Brazil—The Brazilian government's energy rationing program could adversely affect us*.

## Valesul

Valesul started its operations in 1982 and operates a plant located in the state of Rio de Janeiro. Valesul produces primary aluminum and aluminum alloys in the form of ingots, slabs, bars and billets. Valesul's aluminum is sold primarily in the domestic Brazilian market on a spot basis. Valesul had net revenues of US\$129 million and net income of US\$21 million in 2001.

The table below sets forth information regarding Valesul's recent primary aluminum production, third party scrap recycled by Valesul and our recent tolling acquisitions from Valesul.

		For the Year Ended	d			
	December 31,					
Aluminum	1999	2000	2001			
		(Thousands of tons	)			
Valesul production	91.7	93.8	80.1			
Third party scrap recycled	20.1	19.5	20.1			
Our acquisitions from Valesul	50.7		_			

At the end of 1999, Aluvale and Billiton, Valesul's shareholders, decided to terminate the tolling agreement in force since 1987. Consequently, as of January 1, 2000, Valesul independently purchases its raw material requirements and operates as a company in its own right.

Electricity. Valesul currently obtains approximately 20% of its electrical energy requirements from four internal hydroelectric power plants located in the state of Minas Gerais and the remainder from a third party power company at market rates. The Brazilian federal power system uses a two-tiered (peak and off-peak) rate structure, with electricity during peak hours costing considerably more than off-peak electricity. Valesul has invested substantial amounts to reduce its electricity cost during peak hours. If its initiatives are successful, Valesul could realize substantial cost savings in producing aluminum. To address Valesul's need for reliable electrical power sources, we have built a ten megawatt hydroelectric power plant at Rio Preto in the state of Minas Gerais, which began operations in October 1997. Valesul is also a participant in another power plant, known as Machadinho, that will be operational in 2002 and will ensure the self-sufficient power supply in peak hours.

Due to the energy shortage and the Brazilian government's energy rationing program which required an energy consumption decrease of 25% for aluminum related activities in the second half of 2001, we reduced 2001 aluminum production at Valesul by 13,000 tons to 80,000 from the previously planned 93,000. Valesul decreased the production of ingots, a commodity traded on the London Metal Exchange. Valesul did not alter the production of higher value added products, such as alloys and billets, that are sold under contracts with customers. Despite this mandatory temporary reduction, we continue to pursue our long-term plan to expand our aluminum operations. For information on the risks associated with the Brazilian government's energy rationing program, see *Item 3.D. Risk Factors*—Risks Relating to Brazil—The Brazilian government's energy rationing program could adversely affect us.

Competition in Bauxite, Alumina and Aluminum

Competition in the bauxite export market is based primarily on two key factors: quality of bauxite and reliability of purchasers. We believe that MRN remains competitive in this market because of:

- the high quality of Brazilian bauxite, and
- our aluminum production system which ensures internal use of our bauxite production.

Quality, price and reliability of supply drive competition in the alumina market. We believe that Alunorte is competitive in the alumina market because of:

its proximity to MRN's bauxite mines,

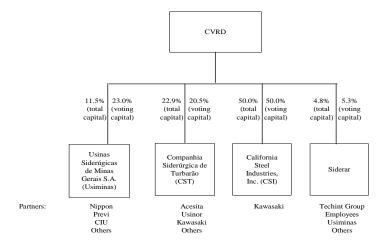
- its newly developed refinery facilities,
- its efficient port facilities, and
- the on-going support of its owners in committing to purchase a substantial portion of its annual production.

Aluminum is a commodity and competition is based primarily on the economics of transportation and the costs of production. We believe that Albras is competitive in the aluminum market because of:

- its relatively efficient and accessible port facilities, and
- its generally prevailing lower costs of production.

#### Steel Investments

At December 31, 2001, our steel business operated through the following joint ventures:



In line with our strategy to consolidate and focus on mining, logistics and energy, on December 31, 2000 we reached an agreement to unwind our cross holdings with CSN, which we completed in March 2001. Additionally, in December 2000 we exchanged our 2.28% interest in Aço Minas Gerais S.A., or Açominas, a privately held steel company for US\$10 million worth of preferred shares of Gerdau S.A., a publicly listed steel holding company, which shares we intend to sell in the future. CSI, a North American steelmaker, is the principal purchaser of slabs from CST, with whom we have an exclusive supply contract for iron ore and pellets. In addition, our participation in CSI gives us access to and experience dealing with the U.S. market, where we currently have a very small market share. For these reasons, we intend to hold our investment in CSI.

The following table sets forth information on our continuing interests in makers of steel products.

Investment	Location	2001 Production	2001 Net Revenues	<b>Principal Products</b>
		(Millions of tons)(1)	(In millions of US\$)(2)	
CSI	United States	1.8	640	Hot-rolled steel; cold-rolled steel; galvanized steel; steel tubes
CST(3)	Brazil	4.9	866	Steel slabs
Usiminas	Brazil	4.6	1,259	Hot-rolled steel; cold-rolled steel; heavy steel plates; electro

Investment	Location	2001 Production	2001 Net Revenues	Principal Products
		(Millions of tons)(1)	(In millions of US\$)(2)	
Siderar	Argentina	1.9	778	galvanized steel Hot-rolled steel; cold-rolled steel; galvanized steel; tin plates

- (1) Production in million of tons of crude steel for all steelmakers except CSI, and in millions of tons of finished products for CSI.
- (2) Represents amounts translated from local financial statements and converted into U.S. dollars (where applicable) at prevailing year-end exchange rates.
- (3) We are party to a shareholders' agreement which permits us to participate in a control group.

The market value of our investments in CST, Usiminas, and Siderar, all of which have publicly traded equity, was US\$224 million at December 31, 2001. The aggregate net book value of these investments was US\$65 million at December 31, 2001. The aggregate net book value of our total investments in steel producing companies (including CSI, a privately held company) was US\$163 million at December 31, 2001. We earned US\$14 million in dividends from these investments in 2001.

#### **Fertilizers**

We conduct our fertilizer business primarily through our stake in Fertilizantes Fosfatados S.A., or Fosfértil, a company that produces and sells nitrate and phosphate based fertilizers. Our total and voting interest in Fosfértil is 11.0%. Our main partner in Fosfértil is Fertifós-Administração e Participações S.A.

## **Regulatory Matters**

## Mining

Under the Brazilian Constitution, all mineral resources in Brazil belong to the Brazilian government. The Brazilian Constitution requires that mining companies incorporate in accordance with Brazilian law.

The Brazilian Constitution and Mining Code impose on mining companies various regulatory restrictions relating to, among other things:

- the manner in which mineral deposits are exploited,
- the health and safety of workers,
- the protection and restoration of the environment,
- the prevention of pollution, and
- the promotion of local communities where mines are located.

Mining companies in Brazil can only prospect and mine for mineral resources pursuant to prospecting authorizations or mining concessions granted by the National Mineral Production Department, *Departamento* Nacional de Produção Mineral, or DNPM, an agency of the Ministry of Mines and Energy of the Brazilian government. DNPM grants prospecting authorizations to a requesting party for an initial period of three years. These authorizations are renewable at DNPM's discretion for another period of one to three years, provided that the requesting party is able to show that the renewal is necessary for proper conclusion of prospecting activities. On-site prospecting activities must start within 60 days of official publication of the issuance of a prospecting authorization. Upon completion of prospecting activities and geological exploration at the site, the grantee must submit a final report to DNPM. If the geological exploration reveals the existence of a mineral deposit that is economically exploitable, the grantee will have one year (which DNPM may extend) from approval of the report by DNPM to

apply for a mining concession or to transfer its right to apply for a mining concession to a third party. When a mining concession is granted, the holder of the concession must begin on-site mining activities within six months. DNPM grants mining concessions for an indeterminate period of time lasting until the exhaustion of the mineral deposit. Extracted minerals that are specified in the concession belong to the holder of the concession. With the prior approval of DNPM, the holder of a mining concession can transfer it to a third party that is qualified to own concessions. In some cases, mining concessions are challenged by third parties.

The Brazilian government taxes mining companies on the basis of minerals extracted. It also imposes other financial obligations. For example, mining companies must compensate both private property owners for damage and loss of income caused by use and occupation of land and state or municipal governments where the mine is located. In the case of mining on private lands, mining companies must share production with landowners. A substantial majority of our mines and mining concessions are on lands owned by us or on public lands for which we hold mining concessions.

## Energy

Under the present regulatory structure, the power industry in Brazil is comprehensively regulated by the Brazilian government, acting through the Ministry of Mines and Energy and ANEEL, the Brazilian electricity regulatory governmental agency. The role of the Ministry of Mines and Energy is to develop policies and regulations aimed at organizing and regulating the electricity sector. ANEEL's main function is to ensure the efficient and economical supply of energy to consumers by monitoring prices and promoting market competition.

Under Law No. 8,987, concessions grant exclusive rights to generate and transmit or to distribute electricity in a particular area for a period of time that, in the opinion of ANEEL, is sufficient for the concessionaire to recover its investment, up to a limit of 35 years in the case of concessions for power generation. Concessions may be renewed at ANEEL's discretion for an additional period of equal duration. Concessionaires are required to supply electricity for public services at the established prices, on a continuing basis, in sufficient quantity and within approved standards of quality.

To mitigate the potential volatility of revenues for hydroelectric generators, ANEEL has implemented regulations that create the Energy Reallocation Mechanism, known as MRE, a mechanism for sharing hydrological risk among all generators.

In order to implement the MRE, ANEEL designates a level of energy production, known as Assured Energy, for each generator, every five years. Assured Energy is calculated in accordance with a statistical model based on average rainfalls in the relevant region, water flows of rivers and water levels in each plant's reservoir over a multi-year time frame. Each generator is promised payment for the amount of its Assured Energy, as long as MRE members as a whole are able to meet MRE Assured Energy levels. To the extent a generator has signed contracts for the sale of its Assured Energy, it receives payments based on these contractual terms, regardless of its level of actual generation. Each generator is allowed to enter into contracts to sell up to 100% of its Assured Energy. If all MRE members meet their contracted energy and there is still produced energy remaining, then there will be an allocation of the net regional surplus generation among generators in different regions.

Energy will be traded in the wholesale energy market, or MAE, at the price prevailing in the region in which the energy has been generated. MAE is the legal entity responsible for the operation of the wholesale energy market and seeks to ensure that purchases of energy in the short-term market are settled and cleared in an efficient manner. Originally created as a self-regulatory body, on February 22, 2002, MAE became a legal entity under supervision and regulation by ANEEL, due to MAE's failure in implementing a self-regulated energy market. MAE is expected to compute the spot price for energy according to guidelines that are currently in use and available to the public. The spot price is determined by a model called Newave that considers the optimum operation condition for the integrated system. This model will change to a bid model which is intended to reflect market conditions more accurately. The new model is currently under study by the government.

The concepts of Assured Energy and the MRE, together with bilateral contracts between generators and distributors, determine the annual revenues for each generator. Initial contracts between generators and distributors are power purchase agreements in which the parties agree to purchase and sell energy at tariffs set forth by ANEEL.

Initial contracts will be valid and binding during a transition period until price deregulation is completed, when they will be fully replaced by bilateral contracts. Bilateral contracts between generators and distributors may be freely negotiated at any price level and with any form of pricing adjustment, subject to compliance with certain Brazilian legal requirements governing generally permissible indexation mechanisms in contracts.

### **Environmental Matters**

Federal, state and municipal legislation contain provisions for the control and protection of the environment in Brazil. These laws oversee the use of natural resources, the reclamation and restoration of mined areas, the control of atmospheric emissions, the treatment of industrial effluents, as well as the use, handling and final disposal of hazardous materials. It is possible that current environmental regulations will become more strict in the future. The strengthening of these laws may lead to greater costs for environmental compliance.

In order to conduct our mining, energy generation and industrial activities, we must prepare environmental impact assessments and submit them to authorities who oversee the granting of environmental permits. We are committed to complying with all legal requirements and achieving the best relationship with interested parties, especially the communities located near our operational activities. The implementation of the environmental management system in all of our installations and operations provides a systematic approach for the improvement of the legal compliance and the environmental performance of our activities.

Under Brazilian Federal Law No. 9,605, non-compliance with environmental laws and regulations can result in criminal penalties, such as imprisonment and other restrictions on personal rights for individuals (including directors, officers and managers of companies), and fines and the mandatory rendering of public services by companies. Administrative penalties range from warnings and fines to the suspension of corporate activities, and may also include the loss or reduction of the incentives, or the cancellation or interruption of credit facilities granted by governmental institutions.

Issuance of Environmental Licenses. We must obtain environmental licenses in order to build, install, expand and operate facilities that use natural resources or may pollute the environment. Our environmental policies aim to obtain the legally required licenses for each of our facilities and activities. We have entered into agreements with the appropriate environmental authorities with respect to facilities where environmental non-compliance has been detected in order to make these facilities compliant.

Prevention and Environmental Control Measures. Our environmental policies also aim to prevent, control and reduce the environmental impact caused by our business operations. To that end, we have made significant environmentally-related investments in our facilities and in employee training programs (approximately US\$30.4 million in 2001). We are also investing in the development of environmental projects directed at the communities located near our operational facilities.

We continually seek to improve the management of our environmental policies. We are currently developing new programs to rationalize water use, integrate information collection, and improve land management.

We also support various long-term initiatives aimed at providing assistance to indigenous populations in twenty territories affected by our operations. For example, in Carajás, we support programs covering education, health, and the development of infrastructure.

In 1996, we developed an environmental management program which will be implemented in all of our installations and operations. This program provides a systematic approach to the improvement of the legal compliance and the environmental performance of our activities, and further acknowledges our commitment to high environmental standards. The following operational facilities have obtained the International Standards Organization ("ISO") certification No. 14001:

- Mineral Development Center, located in the state of Minas Gerais;
- iron and manganese mines located in Carajás, in the state of Pará;
- mining complex of Timbopeba, located in Mariana, in the state of Minas Gerais; and

- Ponta de Madeira marine terminal, in the state of São Luis.
- iron mines located in Alegria, Córrego do Meio and Agudo, all in the State of Minas Gerais
- Rio Doce Manganese Europe alloy plant, in Dunkerque, France
- Tubarão Industrial Complex, in the state of Espírito Santo

*Principal Environmental Projects*. From 1994 to 2000, we developed an environmental program involving more than 70 projects, with a total investment of approximately US\$109 million, of which US\$50 million were financed by the World Bank.

One of these projects, intended to reduce the atmospheric emissions from the Tubarão Marine terminal complex, has resulted in an enhancement of the air quality of the region (in the state of Espírito Santo), by reducing the total emission of particles by 75%.

With respect to improvements in water quality, we are currently developing several projects, including:

- improvement of water recirculation, principally in the cleaning of iron ore and coal tips;
- collection and treatment of the industrial effluents created by the washing of roads in Tubarão and Itabira; and
- collection and treatment of industrial effluents disposed in bodies of water.

Our environmental program also includes reforestation projects which are intended to protect the soil against erosion processes, such as the Green Aisle Program (*Programa Corredor Verde*) at our Vitória Minas railroad.

We are also pursuing other legally-required projects in connection with the restoration of lands degraded in the course of our mining operations. Environmental laws require us to spend at least 0.5% of the total cost of each venture with a material environmental impact to create and maintain protected sites.

We also participate in maintaining and preserving Brazil's rainforests, including the Carajás National Forest and the Vale do Rio Doce Natural Reserve.

## **Patents and Trademarks**

We hold a significant number of patents, registered with the U.S. Patent and Trademark Office, and with the Brazilian *Instituto Nacional de Propriedade Industrial*, or INPI, governmental agencies responsible for the granting and registration of patent and trademarks rights in the United States and in Brazil, respectively. The majority of our patents relate to proprietary ore dressing processes. One of our most successful patents relates to a concentration process for lower grade iron ore, generally known as itabirite, which is widely used by other iron ore mining companies around the world. We are currently conducting technological research to permit commercial exploitation of our deposits of hard itabirites.

We have registered the "CVRD" trademark and our proprietary logo with the INPI related to the following categories:

- minerals in general,
- geology, prospecting, topography, photogrammetry, oceanography and land survey services,
- processing, treatment and dressing services in general,
- cargo transport services,
- ancillary services to transportation and warehousing, and

research and analysis services of material for industrial purposes.

We renew our trademark registrations with the INPI every ten years.

### Insurance

We carry insurance covering various types of risks, such as general liability, liability of officers and directors, automotive vehicles, fire, operational risks, operational risks of marine terminals and transportation of precious minerals, as well as group life insurance policy, insuring our employees. The policies are currently in full force and the related premiums were duly paid. We believe that our insurance coverage is adequate for the scope of our operations.

## Item 5. Operating and Financial Review and Prospects

## 5.A. Operating Results

### **Critical Accounting Policies**

The notes to our consolidated financial statements contain a summary of our significant accounting policies and a discussion of recently issued accounting pronouncements.

We have prepared our financial statements in accordance with U.S. GAAP and the rules relating thereto, which requires management to make estimates and assumptions in their application because they are related to matters that are inherently uncertain. We believe that the following are the more critical judgment areas or involve a higher degree of complexity in the application of the accounting policies that currently affect our financial condition and results of operations:

## Property, Plant and Equipment

Property, plant and equipment are recorded at cost, including interest cost incurred during the construction of major new facilities. We compute depreciation on the straight-line basis rates which take into consideration the useful lives of the items, principally an average of 80 years for the railroads, 20 years for ships, 25 years for buildings and improvements and between 10 and 20 years for mining and other equipment. Expenditures for maintenance and repairs are charged to operating costs and expenses as incurred.

We capitalize the costs of developing major new ore bodies or expanding the capacity of operating mines and amortize these to operations on the unit-of-production method based on the total probable and proven quantity of ore to be recovered. Exploration costs are expensed until viability of mining activities is established; subsequently such costs are capitalized together with further exploration costs. We capitalize mine development costs as from the time we actually begin such development.

## Revenues and Expenses

Revenues are recognized when title has transferred to the customer for services rendered. Expenses and costs are recognized on the accrual basis. Revenue from exported products is recognized when such products are loaded on board the ship. Revenue from products sold in the domestic market is recognized when delivery is made to the customer. Revenue from transportation services, other than shipping operations, is recognized when the service order has been fulfilled. Shipping operations are recorded on the completed voyage basis and net revenue, costs and expenses of voyages not completed at period-end are deferred. Anticipated losses on voyages are provided when probable and can be reasonably estimated.

### Income Taxes

In accordance with Statement of Financial and Accounting Standards 109 "Accounting for Income Taxes", the deferred tax effects of temporary differences have been recognized in the consolidated financial statements. A valuation allowance is made when we believe that it is more likely than not that tax assets will not be fully recoverable in the future.

## 5.A.1. Changes

## **2001 Compared to 2000**

Net operating revenues increased to US\$3,990 million in 2001 from US\$3,935 million in 2000, reflecting an increase in our iron ore and pellets revenues which was partially offset by decreases in revenues from other lines of business.

Revenues from iron ore and pellets increased 19.4% to US\$2,600 million in 2001 from US\$2,177 million in 2000, reflecting a 19.5% increase in volume sold to 148.8 million tons in 2001 from 124.5 million tons in 2000 and a 3.3% increase in sales of higher-margin products, which were partially offset by a 3.2% decrease in average selling prices. In 2001, there was an increase in demand from the growing market in China and therefore our exports to this country increased to 14.9 million tons in 2001 compared to 9.2 million tons in 2000. Our acquisition of Ferteco in April 2001 increased our 2001 sales volume for iron ore and pellets by 11.7 million tons.

Revenues from gold sales decreased 10.9% to US\$139 million in 2001 from US\$156 million in 2000, representing a 9.0% decrease in volume sold and a 1.9% decrease in average selling prices. The reduction in volume sold was principally due to the closure of our Almas and Caeté mines at the end of 2000 and to a reduction in gold extracted during the first quarter of 2001, due to operational problems at two other mines, which problems were subsequently resolved.

Revenues from other mining products increased 3.4% to US\$426 million in 2001 from US\$412 million in 2000. This increase is mainly due to price increases, partially offset by a US\$35 million reduction in sales of our ferroalloys subsidiary, Sibra, due to a decrease in average prices. Potash and kaolin sales also decreased as a result of a reduction in demand.

Revenues from transportation services decreased 20.0% to US\$608 million in 2001 from US\$760 million in 2000, principally due to the loss of revenues from services provided to Ferteco and Samitri following our acquisition of these companies in May 2000 and in April 2001, respectively, which are now eliminated in our consolidated financial statements. Revenues from services provided to Ferteco and Samitri prior to their acquisition totaled US\$86 million in 2000 and US\$20 million in 2001. Other factors leading to the reduction in revenues from transportation services include a 13.0% decline in prices for domestic transport as a result of the depreciation of the *real* in 2001, as well as a decrease in our international transportation revenues due to our divestments in the dry-bulk shipping business.

Revenues from aluminum products (bauxite, alumina and aluminum) decreased 21.5% to US\$284 million in 2001 from US\$362 million in 2000. This decrease of US\$78 million was due to a US\$60 million or 20.7% reduction in aluminum sales as a result of lower production due to the energy rationing program, and to a US\$18 million reduction in our resales of alumina provided by our alumina affiliate Alunorte as a result of increased alumina sales by Alunorte to its other shareholders.

Revenues from other products and services decreased 62.9% to US\$75 million in 2001 from US\$202 million in 2000, primarily representing decreases in pulp and paper product revenues following our divestment of Cenibra.

## Operating costs and expenses

Overall costs and expenses decreased 4.2% to US\$2,327 million in 2001 from US\$2,429 million in 2000. Our costs and expenses, as expressed in U.S. dollars, were favorably affected by the significant depreciation of the *real* against the U.S. dollar during the year (from R\$1.9554 to US\$1.00 at December 31, 2000 to R\$2.3204 to US\$1.00 at December 31, 2001, or a depreciation of 15.7%), because the majority of these costs and expenses are denominated in *reais*. The average exchange rate was R\$2.2854 to US\$1.00 during 2001 and R\$1.7975 to US\$1.00 during 2000, or a depreciation of 21.3%. This decrease was partially offset by an increase of US\$109 million, or 4.8%, in 2001 relating to our acquisition of Ferteco and a smaller increase due to the inclusion of Samitri costs in 2001.

Cost of ores and metal sold increased 12.8% to US\$1,605 million in 2001 from US\$1,423 million in 2000. The increase of US\$182 million was principally due to an increase of US\$124 million in costs due to the Ferteco

acquisition. This increase in costs was partially offset by the favorable impact of exchange rate movements which is estimated at US\$90 million.

Cost of transportation services decreased 21.4% to US\$378 million in 2001 from US\$481 million in 2000, due to improved cost management related to our ships in addition to the loss of costs from providing services to Ferteco and Samitri.

Cost of aluminum products decreased 19.5% to US\$269 million in 2001 from US\$334 million in 2000 as a result of lower levels of activity. The favorable effect of exchange rate movements on the cost of aluminum products is insignificant, since the related costs are primarily determined by international market prices.

Cost of other products and services decreased 60.7% to US\$75 million in 2001 from US\$191 million in 2000, reflecting principally the decreases in volumes of pulp and paper purchases as a result of our divestitures in this line of business.

Selling, general and administrative expenses increased 7.1% to US\$241 million in 2001 from US\$225 million in 2000, due principally to the acquisition of Ferteco which increased these expenses by US\$25 million or 11.1% in 2001, partially offset by the effects of exchange rate movements.

Research and development, employee profit sharing and other costs and expenses increased 38.9% to US\$493 million in 2001 from US\$355 million in 2000. This increase is mainly attributable to asset impairment provisions made in 2001, including expected losses on the sale of ships (US\$34 million).

*Non-Operating Income (Expenses)* 

Net non-operating income was US\$191 million in 2001 compared to net non-operating expenses of US\$195 million in 2000. The aggregate favorable change of US\$386 million was principally due to gains on sales of investments (US\$784 million) upon divestment of our interests in Bahia Sul, CSN and Cenibra in 2001. This was partially offset by additional net financial expenses of US\$93 million in 2001 due principally to a reduction in financial income as a result of lower average balances of cash and cash equivalents and the negative effect of exchange rate movements on our U.S. dollar denominated liabilities, mainly short and long-term debt totaling US\$251 million.

Income Taxes

In 2001 we recorded a tax benefit of US\$218 million. However, our Federal income tax and social contribution expense at statutory rates for 2001 was US\$381 million. The difference was principally due to the tax benefit we derived from making distributions to our shareholders in the form of interest on shareholders' equity in the amount of US\$260 million and to tax exempt foreign income.

Affiliates and Joint Ventures

Our equity in the results of affiliates and joint ventures and provisions for losses on equity investments in aggregate totaled a loss of US\$49 million in 2001 compared to a gain of US\$260 million in 2000.

In 2001, our affiliates in the aluminum sector recorded losses due to the effects of the depreciation of the *real* on their foreign currency denominated debt. Albras reported a gain in 2001, of which we recognized our portion of US\$4 million through a reduction in our provision for losses on equity investments. Alunorte reported a loss, of which we recognized our portion of US\$6 million through equity accounting. In the same period of 2000, our portion of gains reported by Albras and Alunorte were US\$66 million and US\$11 million, respectively.

In addition to exchange rate effects, the operating results of our major aluminum sector affiliates and joint ventures in 2001 compared to 2000, were influenced by the following factors:

Albras - Aluminum sales volume decreased 9.3% to 332,000 tons in 2001 from 366,000 tons in 2000 and average sales prices decreased 5.3% to US\$1,428.99 per ton in 2001 from US\$1,508.42 per ton in 2000.

- Alunorte Alumina sales volume decreased 3.5% to 1,540,000 tons in 2001 from 1,596,000 tons in 2000 and the average sales prices decreased by 5.7% to US\$185.51 per ton in 2001 as compared to US\$196.63 per ton in 2000.
- MRN Bauxite sales volume decreased 2.6% to 10,952,000 tons in 2001 from 11,242,000 tons in 2000 and average sales prices increased 1.1% to US\$20.95 per ton in 2001 from US\$21.18 per ton in 2000.

During 2001, we sold our respective interests in Bahia Sul and Cenibra, which had jointly contributed US\$108 million to our 2000 consolidated net income. Through the date of their respective sales in 2001, these two companies jointly contributed US\$11 million to our 2001 consolidated net income. However, the sale of Bahia Sul and Cenibra resulted in one-time gains of US\$170 million and US\$507 million, respectively, which are included in non-operating income (expenses).

Our steel sector affiliates were affected in addition to a devaluation of the *real* against the U.S. dollar, by a weaker market for steel products which resulted in decreased average sales prices in 2001. Our U.S. affiliate, CSI, was also affected by higher costs resulting from the energy crisis in California. In 2001 we recorded a loss of US\$3 million in respect of our steel sector affiliates compared to a gain of US\$17 million in 2000.

Our railroad affiliate, Centro-Atlântica, continued to perform very poorly in 2001 and we recorded an equity loss of US\$95 million (which included a write-off of goodwill in the amount of US\$74 million) against a loss of US\$30 million in 2000. We and the other shareholders of Centro-Atlântica are currently reviewing alternatives to restructure this business.

In 2001, the results of our other equity investments were generally lower than in 2000 due to the effects of the devaluation of the *real* and to lower results of operations of these affiliates as a result of difficult trading conditions in the markets for their respective products.

## **2000 Compared to 1999**

Revenues

Net operating revenues increased 27.9% to US\$3,935 million in 2000 from US\$3,076 million in 1999, reflecting improvements in most areas of our business, as discussed below.

Revenues from iron ore and pellets increased 28.5% to US\$2,177 million in 2000 from US\$1,694 million in 1999, representing an increase in volume sold of 29.3% to 124.5 million tons in 2000 from 96.3 million tons in 1999, partially offset by changes in product mix. Our acquisitions of Samitri and Mineração Socoimex S.A., known as Socoimex, in May 2000 added major markets notably Europe, Asia and Brazil. A portion of increased revenues is due to the termination of tolling arrangements with our pelletizing joint ventures. Currently, we sell ore to these joint ventures and buy pellets back from them. As a result, both revenues and costs of ores and metals sold have increased.

Revenues from gold sales increased 0.6% to US\$156 million in 2000 from US\$155 million in 1999, reflecting a 1.2% increase in volume sold, offset by a 0.6% decrease in average gold prices.

Revenues from other mining products, such as kaolin, manganese and potash, increased 135.4% to US\$412 million in 2000 from US\$175 million in 1999. This increase includes US\$207 million due to the consolidation in 2000 of our ferro-alloy and kaolin subsidiaries upon acquiring control from our former partners in these enterprises, but volumes and average prices also improved in our manganese business.

Revenues from transportation services increased 18.4% to US\$760 million in 2000 from US\$642 million in 1999, mainly due to a 67.3% increase in the revenues of our shipping subsidiary to US\$271 million in 2000 from US\$162 million in 1999, reflecting a 37.2% increase in average prices and a 23.2% increase in tonnage carried.

Revenues from aluminum products (bauxite, alumina and aluminum) remained virtually unchanged at US\$362 million in 2000 and US\$363 million in 1999. Aluminum sales volumes decreased 21% in 2000 as compared to

1999, primarily due to the termination of our tolling arrangement with Valesul, which is an unconsolidated subsidiary, whereby that company now sells its production directly into the market rather than through our whollyowned subsidiary Aluvale, offset by increases in average prices and increased alumina sales.

Revenues from other products and services increased 57.8% to US\$202 million in 2000 from US\$128 million in 1999, primarily resulting from increases in the international prices for pulp and paper products. We are currently in the process of divesting our pulp and paper business.

## Operating Costs and Expenses

Overall costs and expenses increased 36.9% to US\$2,951 million in 2000 from US\$2,156 million in 1999. This increase includes US\$234 million or 10.9% in 2000, relating to newly acquired subsidiaries which in total generated US\$308 million of additional consolidated revenues (US\$101 million relating to the acquisition of Samitri and Socoimex and US\$207 million relating to the consolidation of ferro-alloy and kaolin subsidiaries).

Cost of ores and metal sold increased 42.9% to US\$1,423 million in 2000 from US\$996 million in 1999, or 7.3% more than the increase in revenues. This mainly reflects increased costs of acquiring pellets due to the termination of tolling arrangements with affiliates and increased fuel costs.

Cost of transportation services sales increased 30.7% to US\$481 million in 2000 from US\$368 million in 1999 or 12.3% more than the increase in revenues. The most important factors in this increase were the continuing upward trend in fuel costs (primarily determined by the international market) and the increase in volumes, partially offset in terms of revenues by lower prices in transportation services other than shipping.

Cost of aluminum products sold increased 3.4% to US\$334 million in 2000 from US\$323 million in 1999, reflecting increases in the purchase price of these products, substantially offset by decreases in volumes purchased.

Cost of other products sold increased 60.5% to US\$191 million in 2000 from US\$119 million in 1999, primarily due to increases in the prices for pulp and paper products.

Selling, general and administrative expenses increased 63.0% to US\$225 million in 2000 from US\$138 million in 1999. Newly acquired subsidiaries added US\$36 million to these costs, or 26.1%, in 2000. General and administrative costs further increased by US\$28 million in 2000 compared to 1999 as a result of transferring various accounting, control, legal and information technology functions from the operating divisions to the corporate center and outsourcing data processing activities. The remaining increase of US\$23 million is attributable to the effect of increased business activity on selling and general expenses.

Research and development, employee profit sharing and other costs and expenses increased 40.1% to US\$297 million in 2000 from US\$212 million in 1999 mainly due to increased geological research activity targeting copper deposits, and to provisions for labor-related and tax contingencies, which were US\$24 million higher in 2000 than in 1999.

## Non-Operating Income (Expenses)

Net non-operating expenses increased to US\$253 million in 2000 from US\$250 million in 1999. Although the rate of devaluation of the *real* against the U.S. dollar in 2000 was lower than in 1999, thereby reducing our net foreign exchange and monetary loss (mainly on our foreign currency debt) by US\$71 million, this positive impact was offset by an increase in financial expenses of US\$82 million, most of which was related to increased borrowing (US\$53 million) and to taxes on financial transactions (US\$25 million).

## Income Taxes

In 2000, we obtained approval for certain tax incentives relative to our iron ore and manganese operations in Carajás, which resulted in a tax saving of US\$31 million. As a result, our income tax benefit was US\$32 million in 2000 compared to an expense of US\$33 million in 1999. We also continue to pay tax-deductible dividends in the form of interest on shareholders' equity, which reduced our taxes payable by US\$222 million in 2000 compared to US\$181 million in 1999.

### Affiliates and Joint Ventures

Our equity in the results of affiliates and joint ventures and provisions for losses and write-downs on equity investments in aggregate totaled a gain of US\$322 million in 2000 as compared to a loss of US\$227 million in 1999.

In 1999, most of our affiliates and joint ventures in Brazil recorded losses due to the effects of the devaluation of the *real* on their foreign currency debt. Our affiliates in the aluminum sector were especially affected. Albras reported a loss of US\$203 million, of which we recognized US\$104 million through equity accounting. Alunorte reported a loss of US\$137 million, of which we recognized US\$89 million through equity accounting. In 2000, with a more stable exchange rate and price improvements, all our affiliates and joint ventures recorded positive results except for Centro-Atlântica and CFN, our railroad investments.

The operating results of our major affiliates and joint ventures in 2000 as compared with 1999 were influenced by the following major factors:

- Albras—Albras contributed US\$66 million to our net income in 2000. Aluminum sales volume increased 2.8% to 366,000 tons in 2000 from 356,000 tons in 1999 and average prices increased 16.0% to US\$1,508.42 per ton in 2000 from US\$1,300.35 per ton in 1999.
- Alunorte–Alunorte contributed US\$11 million to our net income in 2000. Alumina sales volume rose 14.8% to 1,628,000 tons in 2000 from 1,418,000 tons in 1999 and average prices increased 16.9% to US\$196.63 per ton in 2000 from US\$168.17 per ton in 1999.
- MRN–MRN contributed US\$36 million to our net income in 2000. Bauxite sales volume increased 3.3% to 11,242,000 tons in 2000 from 10,884,000 tons in 1999 and average prices increased 3.2% to US\$21.18 per ton in 2000 from US\$20.53 per ton in 1999.
- Bahia Sul—Bahia Sul contributed US\$42 million to our net income in 2000, compared to US\$13 million in 1999. Pulp sales volume decreased 8.7% to 367,000 tons in 2000 from 402,000 tons in 1999 and average pulp prices increased 31.5% to US\$618 per ton in 2000 from US\$470 per ton in 1999. Paper sales volume decreased 2.3% to 211,000 tons in 2000 from 216,000 tons in 1999 and average paper prices increased 28.8% to US\$824 per ton in 2000 from US\$640 per ton in 1999. In the first half of 2001, we sold our interest in Bahia Sul for approximately US\$318 million, US\$2.4 million of which corresponded to unpaid dividends relating to 2000.
- Cenibra-Cenibra contributed US\$66 million to our net income in 2000. Pulp sales volume decreased 2.5% to 789,000 tons in 2000 from 809,000 tons in 1999 and average prices increased 38.0% to US\$587.54 per ton in 2000 from US\$425.79 per ton in 1999. On July 6, 2001, our former partner in Cenibra agreed to buy our stake in Cenibra for US\$670.5 million. The closing of this transaction took place in September 2001.
- Steel sector affiliates—Increases in volumes and prices, plus productivity gains, produced a contribution of US\$59 million to our net income in 2000. Of this total, US\$13 million relates to investments that we disposed of in 2000 or 2001. We are pursuing the sale of most of our remaining steel interests. In 1999, the devaluation of the *real* substantially affected the results of these affiliates, producing a contribution of only US\$7 million to our consolidated earnings in that year.

#### 5.A.2. Inflation

As measured by the IGP-M Index, published by the *Fundação Getúlio Vargas*, the Brazilian inflation rate was approximately, 7.7% in 1997, 1.8% in 1998, 20.1% in 1999, 9.9% in 2000 and 10.4% in 2001.

Before July 1, 1997, Brazil was considered to have a highly inflationary economy. For periods before July 1, 1997, we remeasured (translated) our financial statements into U.S. dollars from financial statements presented in *reais*, in accordance with the provisions of Statement of Financial Accounting Standards 52–Foreign Currency Translation, or SFAS 52. Under the financial statement remeasurement procedures we adopted, we translated

non-monetary items (inventories, property, plant and equipment and accumulated depreciation and depletion, as well as shareholders' equity accounts) at historical exchange rates. We translated monetary assets and liabilities denominated in Brazilian currency at period-end exchange rates. We included the translation gain or loss resulting from this restatement process in the then-current statements of operations.

As of July 1, 1997, we concluded that the Brazilian economy had ceased to be highly inflationary for purposes of SFAS 52 and changed our functional currency from the reporting currency, U.S. dollars, to the local currency, Brazilian *reais*. Therefore, on July 1, 1997, we translated the U.S. dollar amounts of non-monetary assets and liabilities into *reais* at the then-current exchange rate. These translated amounts became the new accounting bases for such assets and liabilities. At each period ended after July 1, 1997, we have remeasured all assets and liabilities into U.S. dollars at the then-current exchange rate and all accounts in the statements of operations and cash flows at the average rates prevailing during the applicable period. We included the translation gain or loss resulting from this translation process in the cumulative translation adjustments component of shareholders' equity.

### **5.A.3.** Currency Fluctuations

Most of our sales will continue to be dollar-denominated while most of our costs (other than debt expenses) will continue to be denominated in Brazilian currency. As a result, when the *real* is relatively strong against the dollar, this tends to have a negative effect on our reported financial results from operations, and vice versa. On the other hand, because most of our debt (and debt at the joint venture and affiliate level) is dollar-denominated, a relatively weak *real* causes us to record monetary and foreign-exchange losses.

### **5.A.4.** Government Policies

Brazilian economic, fiscal, monetary and political policies and factors have affected us in the past and will affect us in the future. In addition, we are affected by these policies and factors in the markets where we sell our products, principally Europe and Asia. See *Item 3.D. Risk Factors* for a description of some of these policies and factors that can affect our results of operations.

Brazilian government policies can also affect your rights as a holder of our American depositary shares. See *Item 10.D. Exchange Controls and Other Limitations Affecting Security Holders.* 

## 5.B. Liquidity and Capital Resources

## 5.B.1. Liquidity

Our principal sources of liquidity have consisted of cash generated from operations and short-term and long-term secured and unsecured borrowings. We believe these sources will continue to be adequate to meet our currently anticipated uses of funds, which include working capital, investment capital, capital expenditures, debt repayment and dividend payments.

From time to time, we review acquisition and investment opportunities and will, if a suitable opportunity arises, make an investment. We can make any future investments either directly or through subsidiaries, joint ventures or affiliated companies, and we may fund these investments through internally generated funds, the issuance of debt or equity or a combination of these methods.

As a result of our acquisitions in 2001, we generated a net decrease in cash and cash equivalents of US\$94 million compared to a net decrease of US\$242 million in 2000 and net increase of US\$264 million in 1999. As of December 31, 2001, we had cash and cash equivalents of US\$1,117 million.

### **Sources of Funds**

Operating activities provided net cash flows of US\$1,518 million in 2001 compared to US\$1,424 million in 2000 and US\$1,336 million 1999.

Financing activities (before distributions to shareholders), which include short-term and long-term secured and unsecured borrowings and debt repayments, provided net cash flows of US\$79 million in 2001 compared to using net

cash flow of US\$176 million in 2000 and providing net cash flows of US\$41 million in 1999. In 2001, our principal source of borrowed funds was a US\$300 million asset securitization.

As of December 31, 2001, our aggregate outstanding debt was US\$2,948 million, consisting of short-term debt of US\$757 million, including US\$168 million in loans from joint ventures and affiliated companies in connection with the CVRD Group's cash management system, and long-term debt (excluding current portion) of US\$2,191 million, including US\$21 million in loans from related parties. Our short-term debt consists primarily of U.S. dollar-denominated trade financing, documented mainly in the form of export prepayments and export sales advances with Brazilian and foreign financial institutions.

#### **Uses of Funds**

Investing activities, primarily including acquisitions, other capital expenditures and investments in and loans to joint ventures and affiliated companies, consumed net cash flows of US\$531 million in 2001 compared to US\$1,489 million in 2000 and US\$469 million in 1999.

Other significant uses of cash included:

- repayment of debt, which consumed US\$350 million in 2001, US\$444 million in 2000 and US\$347 million in 1999, and
- payment of dividends and interest on shareholders' equity, which consumed US\$1,066 million in 2001, US\$246 million in 2000 and US\$452 million in 1999.

### **5.B.2.** Debt

Our long-term debt consists principally of U.S. dollar-denominated notes and borrowings. At December 31, 2001, approximately US\$633 million of our debt was secured by liens on some of our assets.

Except for the perpetual notes, which have no scheduled maturity date, all of our currently outstanding long-term debt is likely to mature by 2011 in accordance with the schedule below.

Year ended December 31,		(In millions of US\$)(1)		
2003	\$	662		
2004		725		
2005		255		
2006		151		
2007		225		
2008 and thereafter		97		
No due date (perpetual notes)		55		
Total	\$	2,170		

<sup>(1)</sup> Excludes US\$21 million in loans from related parties.

In March 2002, we issued US\$300 million in debt which matures in 2007.

We use derivative instruments to manage our exposure to interest rate fluctuations. See *Item 11. Quantitative and Qualitative Disclosures About Market Risk*. Giving effect to these instruments, at December 31, 2001, our weighted-average effective interest rate on long-term debt was 5.4097%.

Some of our long-term debt instruments contain restrictive financial covenants. We were in compliance with such covenants as of December 31, 2001, and we believe that we will be able to operate within the terms of such financial covenants for the foreseeable future. None of these covenants directly restrains our ability to pay dividends on equity securities at the parent company level.

## **5.B.3**. Budgeted Capital Expenditures

The table below sets forth our capital expenditures budget for 2002.

	2002 Budgeted Expenditures			
	(In million	ns of US\$)		
Ferrous	\$ 406	57.8%		
Nonferrous	61	8.7		
Logistics	51	7.3		
Energy	139	19.8		
Corporate center	45	6.4		
Total	\$ 702	100.0%		

Structural changes in the production of iron ore and steel have been generating a growing global demand for pellets, and smoothing the volatility of the pellet market. See *Item 4.B.*, *4.C. and 4.D. Business Overview*, *Organizational Structure and Property, Plants and Equipment — Business Strengths — Well-Positioned to Meet Demand in a Changing Steel Industry*. In the belief that this trend will continue over the next few years, we have been investing heavily in our pellet operations. In 2002, we have set aside US\$50 million for the São Luís pellet plant construction project which was completed in the first quarter of 2002.

To increase productivity and meet the demand increase that we anticipate from the construction of the São Luís pelletizing plant, we have set aside investments in projects of US\$206.3 million for iron ore mining and US\$37.8 million for logistics. In the Southern System, we intend to spend US\$7.5 million on increasing capacity of the Gongo Soco mine from 7 to 8.4 million tons, US\$6.7 million on extending the useful life of the Timbopeba mine and of the Capanema beneficiation plant. In the Northern System, we intend to spend US\$17.7 million in the construction of a new pier at the Ponta da Madeira Port Terminal, increasing the port's capacity to 56 million tons, and US\$10 million on expanding capacity of iron ore stocking facilities. In addition, we intend to spend about US\$40.8 million on projects to improve the infrastructure for the operation of the São Luís pellet plant.

The future deregulation of the electricity market, and the demand pressures created by a growing economy, indicate a trend of rising electricity prices in Brazil. Investment in energy, for which we have a budget of US\$139 million in 2002, is therefore expected to become a powerful tool in controlling and reducing costs and generating revenues. This budget includes US\$125 million which will be absorbed by the ongoing hydroelectric projects at Aimores, Porto Estrela, Candonga, Funil, Capim Branco I and Capim Branco II and Foz do Chapecó.

Most of the capital expenditures budget relating to replacement and improvement is expected to be allocated toward the Southern System, to be spent mainly on modernization and increasing the capacity of the mines and the Vitória Minas railroad. We will modernize control and maintenance systems for the railroad and will replace a number of processing systems in the mines.

# 5.C. Research and Development, Patents and Licenses, Etc.

Our mineral exploration activities are currently focused on identifying copper and gold deposits for future exploitation. We incurred US\$27 million, US\$48 million and US\$43 million on geological exploration in 1999, 2000 and 2001, respectively.

## 5.D. Trend Information

Several factors will affect our future results of operations, liquidity and capital resources, including:

- contract prices for iron ore and pellets and world market prices for aluminum and gold,
- the level of demand in the seaborne market for our iron ore and pellets,
- the level of demand for our third party transportation services,
- the relationship between the *real* and the U.S. dollar, in which most of our sales are denominated,

- the results of operations of joint ventures and affiliated companies (in particular our aluminum operations and pellet joint ventures) recorded under the equity method in our financial statements,
- Brazil's electricity shortage, and
- Brazilian tax legislation.

#### Prices

The prices for our core mineral products fluctuate, although iron ore and pellet prices are less volatile than those of aluminum and gold. We expect these fluctuations to continue.

The table below sets forth our quarterly sinter feed reference prices in U.S. dollars for iron ore and pellet export sales and world quarterly market prices for gold and aluminum for the periods indicated.

	Iron Ore			_							
	Asian Market(1)		European Market(1)(2)		Pe	Pellets(3)		Gold		Aluminum	
			( <b>p</b>	er ton)		(per troy ounce)(4)			(per pound)(5)		
1Q98	US\$	15.82	US\$	19.21	US\$	34.66	US\$	301	US\$	0.66	
2Q98		15.78		19.21		34.66		296		0.60	
3Q98		15.78		19.21		34.66		294		0.61	
4Q98		15.78		19.21		34.66		288		0.57	
1Q99		15.78		17.10		30.07		279		0.62	
2Q99		14.48		17.10		30.07		261		0.60	
3Q99		14.48		17.10		30.07		299		0.68	
4Q99		14.48		17.10		30.07		290		0.71	
1Q00		14.48		17.82		31.87		277		0.75	
2Q00		15.35		17.82		31.87		288		0.68	
3Q00		15.35		17.82		31.87		274		0.72	
4Q00		15.35		17.82		31.87		274		0.67	
1Q01		15.35		18.68		32.46		258		0.69	
2Q01		16.01		18.68		32.46		269		0.67	
3Q01		16.01		18.68		32.46		293		0.62	
4Q01		16.01		18.68		32.46		278		0.61	

<sup>(1)</sup> Represents our quarterly standard sinter feed reference prices for export sales for periods indicated (FOB Tubarão—Asian market and FOB São Luís—European market) and not actual prices realized on sales.

- (4) Represents London Gold Market prices.
- (5) Represents London Metals Exchange prices (cash/three-month average quotations).

*Iron Ore.* Our iron ore export sales are generally made pursuant to long-term supply contracts which provide for annual price adjustments. Cyclical changes in the world demand for steel products affect sales prices and volumes in the world iron ore market. Different factors, such as the iron content of specific ore deposits, the various beneficiation and purifying processes required to produce the desired final product, particle size, moisture content, and the type and concentration of contaminants (such as phosphorus, alumina and manganese) in the ore, influence contract prices for iron ore. Contract prices also depend on transportation costs. Fines, lump ore and pellets typically command different prices. We generally conduct annual price negotiations from November to February of each year, with separate prices established for the Asian and European iron ore markets. In the Asian market, the renegotiated prices are effective from April of the current year until March of the following year. In the European market, the renegotiated prices are effective

<sup>(2)</sup> Brazilian iron ore prices are generally based on the European market reference price.

<sup>(3)</sup> Represents our quarterly standard pellet reference prices for export sales for period indicated (FOB Tubarão) and not actual prices realized on sales.

for the calendar year. Because of the wide variety of iron ore and pellet quality and physical characteristics, iron ore and pellets are less commodity-like than other minerals. This factor combined with the structure of the market has prevented the development of an iron ore futures market. We do not hedge our exposure to iron ore price volatility.

*Gold.* We sell gold in an active world market in which prices respond to daily changes in supply and demand. We generally seek to manage the risks associated with changes in gold prices through hedging. For more information about our gold hedging activities, see *Item 11. Quantitative and Qualitative Disclosures about Market Risk.* 

Aluminum. We sell our aluminum in an active world market where prices are determined by reference to prices prevailing on terminal markets, such as the London Metals Exchange and the Commodity Exchange, Inc., or COMEX, at the time of delivery. We sell aluminum purchased from the Albras aluminum joint venture pursuant to a take-or-pay commitment for 51% (representing our proportional ownership interest) of the joint venture's annual aluminum production. Although our annual purchase commitment can be substantial, approximately US\$256 million in 2001, prevailing world market prices for aluminum (subject to discount in accordance with the terms of our joint venture agreements) determine our aluminum purchase prices. Albras seeks to manage the risks associated with changes in aluminum prices by hedging. For more information about aluminum hedging, see *Item 11. Quantitative and Qualitative Disclosures about Market Risk*.

#### Demand

Demand for our iron ore products is a function of worldwide demand for steel, which is, in turn, heavily influenced by worldwide economic activity. Worldwide demand for steel had a downward trend in 2001 from 2000. A slowdown in economic activity in Europe or Asia will directly affect demand for our iron ore products, although there will typically be a lag effect. Demand for our other mineral products is also influenced to varying degrees by worldwide economic activity.

Demand for our third party transportation services is influenced by Brazilian economic growth as well as by Brazilian exports and imports of goods.

Effects of Certain Equity Method Affiliates and Investments Carried at Cost

The financial condition and results of operations of our joint ventures, affiliated companies and investments have had a significant effect on our results of operations and financial condition in the past. Our steel and pulp and paper divestitures should limit this effect in future periods, although the activities of our aluminum and pellet joint ventures will remain important. See note 10 to our consolidated financial statements for information on these effects.

## Rising Unit Extraction Costs

Several of our mines, such as Cauê, Conceição and Capanema, have operated for long periods and may experience rising extraction costs per unit as more expensive processes become necessary to extract remaining ore in these mines. Increases in extraction costs at each of theses mines have not materially affected our results of operations as such increases were offset by productivity gains and by the favorable foreign exchange effects on these costs.

## Electricity Costs

Electricity costs are a significant component of the cost of producing aluminum. Our aluminum plant, Albras, entered into a 20-year contract with Eletronorte, a state-owned power utility, pursuant to which Albras purchases electricity at rates which are lower than the prevailing market rates in the region. For the years ended December 31, 2001, 2000 and 1999, the prevailing market rate was US\$22.87, US\$24.48 and US\$23.36 per MWh, respectively. The average price paid by Albras for the same periods was US\$11.27, US\$11.93 and US\$10.56 per MWh, respectively. The Eletronorte contract is scheduled to expire in May 2004.

# Effects of the Energy Shortage in Brazil

On June 1, 2001, the Brazilian government, as part of its energy rationing program, required energy consumption to decrease by at least 20% relative to average consumption for May, June and July 2000. Aluminum and ferro-alloy activities were categorized as electricity-intensive activities and energy consumption relating to these activities was

required to decrease by 25% relative to average consumption for May, June and July 2000. Our total expected energy consumption for 2001 was 14.5 TWh. However, due to this rationing program, our actual energy consumption for 2001 was 12.5 TWh. In 2000, our total energy consumption was 13.8 TWh. As a result, we reduced our ferro-alloy production in the six-month period ending November 30, 2001 by 46,000 tons, from the previously planned 220,000 tons to 174,000 tons. We also reduced 2001 aluminum production at Albras by 46,000 tons to 333,000 tons from the previously planned 379,000 tons, and at Valesul by 13,000 tons to 80,000 tons from the previously planned 93,000 tons. By the end of 2001, climate conditions in Brazil improved, reducing the immediate risk of energy shortages. Therefore, on December 31, 2001, the Brazilian government eliminated the rationing in the rest of the country. For a discussion about the possible consequences and risks associated with energy shortages, see *Item 3.D. Risk Factors—Risks Relating to Brazil, and Item 4.B., 4.C. and 4.D. Business Overview, Organizational Structure and Property, Plants and Equipment—Lines of Business—Holdings.* 

### Divestitures

Past divestitures include Bahia Sul (pulp and paper), Cenibra (pulp and paper), Açominas (steel), and CSN (steel). Divestitures currently in progress include our dry-bulk cargo business and our forestry activities.

The following table shows the effects of both past divestitures and those currently in progress on our gross revenues, net income and total assets:

_	For the Year Ended December 31			
_	2001	2000	1999	
Decrease in gross revenues	4.4%	6.3%	4.9%	
Decrease (increase) in net income	(1.1)	7.4	(6.8)	
Decrease in total assets	1.5	7.4	7.8	

## Brazilian Taxes

We are subject to a number of Brazilian taxes in addition to corporate income tax. Brazilian tax legislation changes, which are frequent, can have an impact on our results of operations. Some Brazilian taxes are described below.

Value-Added Tax. Our revenues consist of total revenues from sales, net of discounts, returns and allowances, together with amounts we collect in respect of value-added tax. Net operating revenues represent revenues less value-added tax, which we collect on behalf of, and must remit to, state taxing authorities. Export sales are currently exempt from value-added tax.

Social Contribution on Profits. Social contribution on profits is a federal income tax. The rate has fluctuated in the past three years from 8% to 12% and is currently at 9%. Before 1997, this tax was deductible for income tax purposes; beginning in 1997, the tax is no longer deductible. After December 2002, the applicable rate is scheduled to be 8%.

Social Integration Program and Social Contribution on Gross Sales. The Social Integration Program, or PIS, aims to finance special social programs through the collection of a 0.65% revenues tax. Social contribution on gross sales, or COFINS, finances special social programs through the collection of a 3% revenues tax. Export sales are currently exempt from both of these taxes.

*Provisional Tax on Bank Accounts.* The provisional tax, known as CPMF, is imposed on every transaction involving the debit of money from a bank account. The CPMF rate has fluctuated from 0.2% to 0.38% since its creation in 1997. For the period between March 18, 2001 and June 17, 2002, the rate is 0.38%.

Financial Compensation for the Exploration of Mineral Resources. We owe a government royalty on net revenues derived from the production and sale of mineral resources. The annual rates on our products are:

• iron ore, 2%,

- bauxite, manganese and potash, 3%, and
- gold, 1%.

Federal Tax on Industrialized Products. Manufacturers pay this federal tax on behalf of their customers at the time of sale, either to another manufacturer to further the manufacturing process or to the retailer of the ultimate customer. Export operations are currently excluded. The tax on our aluminum production is at the rate of 4%.

### Item 6. Directors, Senior Management and Employees

# 6.A., 6.B. and 6.C. Directors and Senior Management, Compensation and Board Practices

#### **Board of Directors**

The *conselho de administração*, the board of directors, is our decision-making body responsible for determining general guidelines and policies for our business, our wholly-owned subsidiaries and controlled companies, and for formulating and expressing our policies. The board of directors is responsible for supervising the executive officers. It also monitors the executive officers' implementation of the general guidelines and policies. The board of directors holds regularly scheduled meetings on a monthly basis and holds additional meetings when called by its chairman, vice-chairman or any two directors. Decisions of the board of directors require a quorum of a majority of the directors and are taken by majority vote.

Under the Brazilian Corporation Law, the board of directors must have at least three members. Each director and his or her respective alternate are elected at a general shareholders' meeting and are subject to removal at any time. Our by-laws state that the board of directors must consist of nine members. Our current employees have the right to appoint one member of the board of directors and its respective alternate. According to our by-laws, members of the board of directors must be Brazilian residents who are both shareholders of CVRD and have managerial experience. Members of the board of directors are elected for three-year terms and can be re-elected. Each alternate director serves on behalf of a specific board member. In the absence of the director for whom an alternate director is acting, that alternate director may attend and vote at meetings of the board of directors.

Six of our current directors and five of our current alternate directors were appointed to their positions directly by Valepar, our principal shareholder, pursuant to Valepar's shareholders' agreement and the provisions of the Brazilian Corporation Law. These appointments were approved at our annual shareholders' meeting held in April 2001. For a description of Valepar's shareholders' agreement, see *Item 7.A. Major Shareholders—Principal Shareholder*.

The table below lists the current members of the board of directors.

	Year		
Name	First Elected	Position	Age
Luiz Tarquínio Sardinha Ferro(1)	1999	Chairman of the Board	41
João Moisés de Oliveira(1)	2001	Board Member	57
Erik Persson(1)	2001	Board Member	47
José Marques de Lima(1)	2000	Board Member	44
Octávio Lopes Castello Branco Neto	2001	Board Member	43
Romeu do Nascimento Teixeira(1)	2001	Board Member	69
Renato da Cruz Gomes(1)	2001	Board Member	49
Renato Augusto Zagallo Villela dos Santos	2001	Board Member	46
Francisco Valadares Póvoa(2)	1997	Board Member	57

<sup>(1)</sup> Appointed by Valepar.

The table below lists the alternate members of the board of directors. One additional alternate director is to be appointed by Valepar.

Name	Year First Elected	Position	Age
José Ricardo do Carmo(1)	2000	Board Member	49
Ricardo Carvalho Giambroni(1)	2001	Board Member	45
Octávio Mauro Muniz Freire Alves(1)	2001	Board Member	41
Eleazar de Carvalho Filho	2001	Board Member	44
Antonio João Martins Torres(1)	2001	Board Member	61
Rômulo de Mello Dias(1)	2001	Board Member	40
Otto de Souza Marques Júnior(2)	1997	Board Member	56

<sup>(1)</sup> Appointed by Valepar.

We have summarized below the business experience, areas of expertise, and principal outside business interests of our current directors:

Luiz Tarquínio Sardinha Ferro. Mr. Ferro was appointed chairman of our board of directors in July 2001. From May 1999 to July 2001, he served as vice-chairman of our board of directors. From 1996 to 1998, he was President of PREVI — Caixa de Previdência dos Funciunários do Banco do Brasil and executive superintendent of the financial department of Banco do Brasil S.A. In 1995, he was appointed general coordinator of the public accounts management unit, at the Secretariat of the National Treasury. From 1994 to 1995, he participated in an international management program of Banco do Brasil. From 1992 to 1994, Mr. Ferro worked at the Secretariat of the National Treasury.

João Moisés de Oliveira. Mr. Oliveira has served as a member of our board of directors since 2001. From 1962 to 2000, he worked at Banco Bradesco S.A. and at several companies in which Banco Bradesco S.A. has a direct or indirect ownership interest. Since 2000, Mr. Oliveira has been an executive officer at Bradespar S.A. He has served as a member of the board of directors of many companies in which Banco Bradesco or Bradespar have or had a direct or indirect ownership interest, including Companhia Siderúgica Belgo Mineira, Companhia Siderúgica Nacional and São Paulo Alpargatas S.A.

<sup>(2)</sup> Appointed by our employees.

<sup>(2)</sup> Appointed by our employees.

*Erik Persson.* Mr. Persson has served as a member of our board of directors since April 25, 2001. Since June 2000, he has been working as a planning director of PREVI—Caixa de Previdência dos Funcionários do Banco do Brasil. He has been at PREVI since 1977.

José Marques de Lima. Mr. Lima has served as a member of our board of directors since April 2000. Currently, he also serves as general manager of the risk management unit at Banco do Brasil. In June 1999, he was appointed as an executive officer of PREVI. From 1984 to 1998, he worked for Banco do Brasil S.A. holding a variety of positions, including team work coordinator and executive manager of the investor relations department, manager of the market and shareholders division and manager of the financial analysis department.

Octávio Lopes Castello Branco Neto. Mr. Castello Branco was appointed as a member of our board of directors on April 2001. He is also a managing director of BNDES. In 1995, he joined J.P. Morgan as head of the investment banking group in Brazil. From 1990 to 1995, Mr. Castello Branco worked at Caemi as the chief financial officer and member of the executive committee. Mr. Castello Branco started his career at JP Morgan's São Paulo Office in 1983 and has developed an extensive experience in mergers and acquisitions, having managed projects across a number of sectors since the inception of J.P. Morgan's mergers and acquisitions group in Brazil.

Romeu do Nascimento Teixeira. Mr. Teixeira has served as a member of our board of directors since April 2001. Mr. Teixeira was also appointed as an executive officer of IESA, Internacional de Engenharia S.A., from 1986 to 1993. Since 1960, he has held many different positions within the CVRD Group. From 1958 to 1960 he worked as an engineer at DNER, Departamento Nacional de Estradas de Rodagem.

Renato da Cruz Gomes. Mr. Gomes joined our board of directors in April 2001. He has also been an executive officer of Bradespar. In 2000, he was appointed as an executive officer of Bradespar S.A. From 1976 through 2000, Mr. Gomes held a variety of positions within BNDES and participated on the boards of directors of many companies, namely Elebra Eletrônica, Globo Cabo, Aracruz, Iochpe, Bahia Sul and Latasa. He is also a member of the consulting board of Factor Sinergia, a securities investment fund, and the investments committee of Bradesco Templeton Value and Liquidity Fund.

Renato Augusto Zagallo Villela dos Santos. Mr. Villela was appointed member of our board of directors in 2001. He has served as Deputy Secretary of Brazilian National Treasury since August 1999. Mr. Villela has held several positions within the City of Rio de Janeiro, including Secretary of Strategic Affairs, Deputy Secretary of Finance, and Economic Advisor of the Secretary of Finance. He has also served as Professor of Monetary and Fiscal Policies of Candido Mendes University Masters Program in Business Economics since 1993. In 1989, he served as Professor of Public Sector Economics at Rio de Janeiro State University. From 1978 to 1979, Mr. Villela was as an associate economist and partner at Annibal Villela consultoria Econômica S/C Ltda. (AVCEL). From 1987 to 1995, he worked as a Senior Economist at IPEA (Applied Economic Research Institute of Brazil's Ministry of Planning)."

Francisco Valadares Póvoa. Mr. Póvoa has served as a member of our board of directors since May 1997. He also sits on the board of Valepar, Valepontocom, Rio Doce Manganese Europe, or RDME, Salobo Metais, CSI and Nova Era Silicon, or NES. Until March, 2001, he was also a member of the board of directors of CSN and was previously an alternate member of the board of CSN. Mr. Póvoa joined us as a mining engineer in 1972 and has held a variety of positions within the CVRD Group.

Vale Overseas' Directors are as follows:

Name	Principal Occupation	Age
	General Counsel, Head of the Legal	
Francisco Rohan de Lima	Department, CVRD	47
Gabriel Stoliar	Executive Officer, CVRD	47
Tito Botelho Martins	Finance Director, CVRD	40

Mr. Stoliar also serves as Vale Overseas' principal executive officer and Mr. Martins also serves as Vale Overseas' principal financial and accounting officer.

The business address of the Directors is Avenida Graça Aranha, 26, 17<sup>th</sup> floor, 20005-900 Rio de Janeiro, RJ, Brazil.

#### **Executive Officers**

The executive officers are our legal representatives and are responsible for our internal organization and day-to-day operations and the implementation of the general policies and guidelines set forth by the board of directors. Our by-laws provide for a minimum of three and a maximum of eight executive officers. The board of directors appoints executive officers for three-year terms and may remove them at any time. According to the Brazilian Corporation Law and to our by-laws, executive officers must be Brazilian residents. The executive officers hold regularly scheduled meetings on a weekly basis and hold additional meetings when called by any executive officer.

We are in the process of revising our corporate governance model in order to, among other things, improve the efficiency of our decision-making process. We are also defining metrics of value reaction, which will improve the transparency in our communications with our investors.

On May 20, 2002, the general meeting approved an amendment to our by-laws to increase the number of the executive board members. As a result, we now have one chief executive officer and up to seven executive officers, each responsible for business areas that the board of directors assigns to them. On October 24, 2001, the board of directors approved a new management structure with the following areas:

- Ferrous Minerals,
- Non-Ferrous,
- Holdings and Business Development (including energy),
- Logistics,
- Finance.
- Investor Relations and Planning and Control, and
- Human Resources and Corporate Services.

The table below lists our current executive officers.

Name	Year of Appointment	Position	Age
Roger Agnelli	2002	Chief Executive Officer	43
Armando de Oliveira Santos Neto	2002	Executive Officer (Ferrous Minerals) Executive Officer (Holdings and Business Development and	52
Antônio Miguel Marques	2002	Non-Ferrous)	45
Guilherme Rodolfo Laager	2002	Executive Officer (Logistics)	45
Fábio de Oliveira Barbosa	2002	Executive Officer (Finance)	41
Gabriel Stoliar	2002	Executive Officer (Investor Relations,	48

We have summarized below the experience, areas of expertise, and principal outside business interests of our current executive officers.

2002

Roger Agnelli. Since July 2001, Mr. Agnelli has been our chief executive officer. He served as chairman of our board of directors from May 2000 to July 2001. He also served as a member of the board of directors of VBC Energia S.A., Companhia Paulista de Força e Luz; Companhia Siderúrgica Nacional (CSN), Brasmotor S.A., Globo Cabo S.A. and Latas de Alumínio S.A. He also served as the chief executive officer of Bradespar S.A. from March 2000 to July 2001. Mr. Agnelli worked for 22 years with Banco Bradesco S.A., where he started his career as an investment analyst and served as executive director from 1992 to 2000. Mr. Agnelli has a degree in Economics from Fundação Alvares Penteado.

Armando de Oliveira Santos Neto. Mr. Santos was appointed as an executive officer of our ferrous minerals area in October 2001. Since 1970, Mr. Santos has held many different positions within the CVRD Group, including trainee at the railway division, assistant to the chief executive officer and marketing manager and executive officer at Rio Doce America, Inc., or RDA, sales manager of the Far East area, coordinator for planning and sales promotion, general manager and director of Rio Doce International S.A., or RDI, general sales manager and executive officer of the iron ore division, commercial officer and executive officer of RDA and member of the board of directors of CSI. Mr. Santos has a degree in civil engineering from the Universidade Federal do Espírito Santo (UFES).

Antônio Miguel Marques. Mr. Marques was appointed as an executive officer of our holdings business development and non-ferrous minerals area in October 2001. Currently, Mr. Marques is Chief Executive Officer of Aluvale and a member of the board of directors of Celmar, Albras, Alunorte, MRN, and Valesul. Prior to that, Mr. Marques has held various positions at Caraíba Metais S.A. Indústria e Comércio, DuPont do Brasil S.A., Billiton Metais S.A., Paranapanema Group and Votarantim Group. Mr. Marques has a degree in engineering from the Universidade Federal de Ouro Preto. He received his post-graduate degree in Mineral Treatment at the Universidade Federal de Minas Gerais (UFMG) and obtained an MBA from COPPEAD, at Universidade Federal do Rio de Janeiro (UFRJ).

Guilherme Laager. Mr. Laager was appointed as an executive officer of our logistics area in September 2001. Mr. Laager served as logistics, supplying and technological information director for AMBEV, Companhia de Bebidas das Américas from 1989 until August 2000. Mr. Laager has a degree in civil engineering from the Universidade Federal do Rio de Janeiro (UFRJ) and obtained an MBA in business administration from COPPEAD, also at UFRJ.

Fábio de Oliveira Barbosa. Mr. Barbosa was appointed as our chief financial officer in May 2002. Prior to that, Mr. Barbosa served as member of our board of directors from April 2000 to March 2002. Previously, he also served as board member of the following companies: BANESPA—Banco do Estado de São Paulo S/A, Banco do Brasil S/A, Caixa Econômica Federal, Cia., Siderúrgica Turbarão and TELESP—Telecomunicações de São Paulo. Prior to joining us, Mr. Barbosa served as secretary of the National Treasury Secretariat at the Ministry of Finance since July 1999, after serving as assistant secretary in the previous four years. From 1992 to 1995, he served as adviser to the Executive Board of the World Bank, in Washington DC. From 1990 to 1992, he was Deputy and Head of the Fiscal Policy Unit at the Ministry of Economy and Finance. From 1988 to 1990, he was economic advisor and head of the Economic Analysis Unit, both at the Ministry of Planning. Prior to that time, Mr. Barbosa held a variety of positions at the Ministry of Industry and Commerce, the Paraná State Development Institute, the Ministry of Labor and the Institute for Applied Economic Research.

Gabriel Stoliar. Mr. Stoliar was appointed as our executive officer of the investor relations and planning and control area in September 1997. In 1994, he was appointed director of BNDESPAR. In 1991, Mr. Stoliar assumed the position of superintendent of the operational division responsible for the areas of mining, metallurgy, chemicals, petrochemicals, pulp and paper. He was hired by BNDESPAR in 1988 as manager of operations in the area of capital, electronic and consumer goods. In 1982, he was promoted to manager of BNDES for the project area of FINSOCIAL. In 1978, he was hired by BNDES as an analyst in the area of pulp, paper and petrochemicals. Mr. Stoliar began his career as a business organization consultant at the Institute of Economic and Management Development of the Federation of Industries of Rio de Janeiro. Mr. Stoliar obtained an engineering degree from Universidade Federal do Rio de Janeiro, a post-graduate degree in production engineering and an MBA from PDG/EXEC-SDE in Rio de Janeiro.

Carla Grasso. Mrs. Grasso was appointed as an executive officer of the human resources and corporate services area in October 2001. Prior to joining us, Mrs. Grasso served as our economic assistant to the President of Brazil. She has also been deputy coordinator of fiscal policy at the Ministry of the Economy and has held a variety of positions at the Ministry of Social Security. In 1997, she was appointed as an executive officer of Fundação Vale de Rio Doce de Habitação e Desenvolvimento Social (FVRD). Mrs. Grasso has both a degree in Economics and a master in Economics from Universidade de Brasilia (UNB).

#### **Fiscal Council**

Under the Brazilian Corporation Law, we may appoint the *conselho fiscal*, a fiscal council, as a corporate body independent of our management and external auditors. The primary responsibility of the fiscal council is to review management's activities and the financial statements, and report its findings to the shareholders. We amended our by-laws on June 18, 1997 in order to provide for the establishment of a five member permanent fiscal council. On April 29, 2002, the shareholders appointed the current members and their respective alternates. Holders of preferred class A shares and the golden share together may elect one member of the fiscal council and the respective alternate. Non-controlling holders of common shares comprising at least 10% of the common shares outstanding may also elect one member of the fiscal council and the respective alternate. The terms of the members of the fiscal council expire at the next ordinary annual shareholders' meeting following their election.

The table below lists the current members of the fiscal council.

	First Year of
<u>Name</u>	Appointment
Claudio Bernardo Guimarães de Moraes	2002
Ricardo Wiering de Barros	2002
Marcos Fábio Coutinho	1999
Eliseu Martins	1997
Pedro Carlos de Mello	2002

The table below lists the alternate members of the fiscal council.

	First Year of
<u>Name</u>	Appointment
Hélio Cabral Moreira	2002
Luiz Octavio Nunes West	1998
Vicente Barcelos	2001
Almir de Souza Carvalho	2002
José Carlos Gouveia Danelli	2002

### Compensation

According to our by-laws, our shareholders are responsible for establishing the aggregate compensation we pay to the members of our board of directors and our executive officers. Our shareholders determine this aggregate compensation at the general shareholders' meeting each year. In order to establish aggregate director and officer compensation, we believe that our shareholders usually take into account various factors which range from age, experience and skills of our directors and officers to the recent performance of our operations. Once aggregate compensation is established, the members of our board of directors are then responsible for distributing such aggregate compensation individually in compliance with our by-laws. Our board of directors does not have a compensation committee.

For the year ended December 31, 2001, we paid approximately R\$5.0 million in aggregate (including benefits in kind granted) to the members of our board of directors and to the executive officers for services in all capacities.

During 2001, the monthly amount we paid to the members of the fiscal council was the higher of (1) R\$4,200 or (2) the equivalent of 10% of the amount paid to a director, excluding benefits. In addition, the members of the fiscal council receive refunds for expenses they incur in connection with transportation and accommodation, whenever such expenses are necessary for the performance of their functions. For the year ended December 31, 2001, none of our board members and executive officers had any financial or other interests in transactions involving us which was not in the ordinary course of business.

### 6.D. Employees

The table below sets forth the number of our employees by category as of the dates indicated.

	At December 31,		
	1999	2000	2001
Mining (other than gold)	4,478	4,948	6,584
Transportation	4,514	4,525	4,725
Gold	588	555	531
Other operational(1)	504	511	628
Administrative	659	903	1,152
Total	10,743	11,442	13,620

<sup>(1)</sup> Does not include pelletizing, aluminum, or pulp and paper joint venture employees.

We establish our annual wage and benefits programs in July of each year following negotiations with our unions. In July 2001, our final proposals to our unions included a 6% salary increase, additions to the list of available medications, provisions for college materials for employees and annual bonus amounts. The provisions of our collective bargaining agreements with our unions also apply to our non-union employees. We have not suffered any material economic loss as a result of labor strikes or stoppages.

Since 1973 we have sponsored a defined benefit pension plan, known as the old plan, covering substantially all employees, with benefits based on years of service, salary and social security benefits. This plan is administered by VALIA, and is funded by monthly contributions we and our employees make, calculated based on periodic actuarial appraisals.

In May 2000, we implemented a new pension plan, which is primarily a defined contribution plan with a benefit feature relative to service prior to May 2000, known as the new plan, and offered our active employees opportunity to transfer to the new plan. Over 98% of our active employees opted to transfer to the new plan. The old plan will continue in existence, covering almost exclusively retired participants and their beneficiaries. In 2001, we contributed approximately US\$37 million to VALIA to fund the new plan and the old plan. In addition, on March 9, 2001, we transferred our 10.3% interest in shares of CSN, to the new plan, as a special contribution valued at US\$249 million, equivalent to the value of such shares (determined based on their weighted average price in the last thirty trading sessions on the São Paulo Stock Exchange during the period ended on March 9, 2001). We also provide scholarships and apprenticeships at our corporate vocational centers. We believe our relations with our union employees and other employees are good.

Our employees have an equity stake in our business. On May 20, 1997, in connection with our ongoing privatization, the Brazilian government completed the sale of 11,120,919 common shares and 8,744,308 preferred shares to Investvale, an association of our current and retired employees and certain affiliates, at per share prices representing substantial discounts to prevailing market prices.

# 6.E. Share Ownership

During the privatization process, the Brazilian government sold 11,120,919 common shares, representing approximately 4.5% of the outstanding common shares, and 8,744,308 preferred class A shares, representing approximately 6.3% of the outstanding preferred class A shares, in an offering restricted to our current and retired employees. Substantially all of the shares sold were purchased through Investvale, an association of our current and retired employees. Employees were also granted the option, exercisable through Investvale, to obtain an interest in the controlling block held by Valepar by exchanging their common shares for equity in Valepar. See *Item 7.A. Major Shareholders—The Privatization*. In addition, Investvale, as any investor, may from time to time acquire and sell our shares in the market. At December 31, 2001, Investvale owned 10,362,069 common shares, representing approximately 4% of our total common shares, and 269,000 preferred class A shares.

As of December 31, 2001, the representative of our employees in the board of directors (as well as his alternate) also held 80,231 *quotas* in Investvale. None of our other directors or executive officers holds an ownership interest in Investvale.

The total number of common shares owned by members of our board of directors as of May 31, 2002, was 17. The total number of preferred shares owned by members of our board of directors as of May 31, 2002, was 209. Our executive officers do not own any of our shares.

Our by-laws authorize us to establish stock option plans, but to date we have not done so.

### Item 7. Major Shareholders and Related Party Transactions

### 7.A. Major Shareholders

The table below sets forth certain information regarding share ownership of the common and preferred shares as of May 31, 2002, by each person who we know to be the owner of more than 5% of any class of our outstanding capital stock, and by all directors and executive officers as a group.

	Shares Owned	Percent of Class
Common Shares		
Valepar S.A	105,443,070	43.0%
BNDESPAR(1)	11,672,271	4.8
Litel Participações S.A.(2)		
Shares owned directly	25,272,641	10.3
Shares owned by Valepar S.A.	105,443,070	<u>43.0</u>
Total beneficial ownership by Valepar S.A.	130,715,711	53.3
Directors and executive officers as a group(3)	17	_
Preferred Shares(4)		
Directors and executive officers as a group	209	_
Golden Share		
Brazilian Government	1	100.0%

<sup>(1)</sup> Excludes common shares owned directly by Valepar, in which this shareholder has an ownership interest. See the table below for information on Valepar's shareholders.

- (3) Share ownership of all directors and officers, as a group, decreased from 14,399 common shares at December 31, 2000, to 17 common shares at May 31, 2002, due to the fact that former members of our board of directors, who individually owned some of our shares, ceased owning them as a result of our unwinding transactions with CSN.
- (4) The Brazilian government (National Treasury) owns 5,075,341 preferred shares representing 3.7% of the outstanding preferred shares and BNDESPAR owns 1,251,980 preferred shares representing 0.9% of the outstanding preferred shares.

<sup>(2)</sup> Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. In general, a person who has or shares voting power or investment power with respect to securities is treated as a beneficial owner of those securities. It does not necessarily imply that the named person has the economic or other benefits of ownership. Litel owns 42% of Valepar. See the table below for more information on Valepar's shareholders.

The table below sets forth information as of May 31, 2002 regarding Valepar S.A. share ownership and Litel Participações S.A. share ownership.

	Shares Owned	Percent of Total Shares_Owned
Valepar S.A.		
Litel Participações S.A	43,985,949	42%
Babié(1)	15,019,621	14
Eletron(2)	21,875,000	21
Sweet River Investments Ltd.(3)	12,187,500	11
BNDESPAR	11,250,000	11
Investvale(4)	1,125,000	1
Total		100%
Litel Participações S.A.		
BB Carteira Ativa 0(5)	129,528,472	52.41%
BB Carteira Ativa I(5)	64,211,703	25.98
BB Carteira Ativa II(5)	53,388,022	21.60
Others	875	0.01
Directors and Executive Officers as a group	3	%
Total	247,129,075	100.00%

- (1) Babié is a holding company owned by Bradesplan and Bradespar, which are affiliated with Banco Bradesco S.A., a Brazilian financial services company.
- (2) Eletron is a company 86% of which is owned by Bradespar and approximately 14% of which is owned by Opportunity Amafi Participações S.A.
- (3) Sweet River Investments Ltd. is affiliated with Bank of America.
- (4) Investvale is an investment club owned by our employees.
- (5) Each of BB Carteira Ativa 0, BB Carteira Ativa I and BB Carteira Ativa II is a Brazilian investment fund. BB Carteira Ativa 0 and BB Carteira Ativa I are 100% owned by Previ. BB Carteira Ativa II is 59.36% owned by Funcef and 38.8% owned by Petros. Each of Previ, Petros and Funcef is a Brazilian pension fund.

### The Privatization

In June 1995, the Brazilian government announced its intention to sell its common and preferred share ownership interests in us as part of the ongoing Brazilian privatization program. After a period of considerable governmental, judicial and public attention and debate, the Brazilian government started our privatization in May 1997.

In the first step of the privatization process, on May 6, 1997, the Brazilian government and BNDES sold 99,999,203 common shares, representing approximately 40.0% of the outstanding common shares, for approximately US\$3 billion to Valepar, a special-purpose company formed to hold a controlling interest in our outstanding common shares. The initial principal investors in Valepar were a subsidiary of CSN, a Brazilian steelmaker, various Brazilian pension funds, an affiliate of Bank of America, a U.S. bank, and certain foreign investment funds.

In the second step of the privatization process, on May 20, 1997, the Brazilian government and BNDES sold 11,120,919 common shares, representing approximately 4.5% of the outstanding common shares, and 8,744,308 preferred shares, representing approximately 6.3% of the outstanding preferred shares, in an offering restricted to our current and retired employees. Substantially all of the shares sold in this step of the privatization were purchased through Investvale, an association of our current and retired employees. Employees were also granted the option, exercisable through Investvale, to obtain an interest in the controlling block held by Valepar by exchanging their

common shares for equity in Valepar. The shares offered to employees were sold at substantial discounts to prevailing market prices. Common shares exchanged for equity in Valepar were sold at R\$11.09 per share, representing a 58.4% discount from the then-current market price. Common shares not exchanged for equity in Valepar were sold at R\$8.88 per share (representing a 66.7% discount from the then-current market price). Preferred shares were sold at R\$8.88 per share (representing a 63.2% discount from the then-current market price). Investvale subsequently contributed 1,125,000 common shares to Valepar, in exchange for a 0.9% equity interest in Valepar. These discounts gave rise to a US\$318 million extraordinary charge in 1997.

In the third step of the privatization process, on March 20, 2002, the Brazilian government and BNDES each sold 34,255,582 shares (and an additional 5,138,337 shares including the underwriters' overallotment option), in the form of common shares or American depositary shares, which together represent 32.1% of our outstanding common stock. Following this offering, BNDESPAR, a wholly-owned subsidiary of BNDES, owned 11,672,271 common shares, representing approximately 4.8% of our outstanding common shares. In addition, the Brazilian government owned outstanding preferred shares, and a golden share in us, which gives it veto powers over certain actions that we could propose to take, and BNDES owned 1,003 of our common shares. For a detailed description of the veto powers granted to the Brazilian government by virtue of its ownership of the golden share, see *Item 10.A. Share Capital*.

#### Shareholder Debentures

At the time of the first step of our privatization in 1997, we issued debentures to our then-existing shareholders, including the Brazilian government. The terms and conditions applicable to the required payments under the debentures, which are described below, were set to ensure that our pre-privatization shareholders, including the Brazilian government, would participate alongside us in potential future financial benefits that we derive from exploiting our mineral resources not included in the settlement of the minimum purchase price of our shares. These financial benefits were not taken into account in the price of our shares at the time of the privatization.

At the time of the privatization, the debentures were distributed, on a one-for-one basis, as a payment for the redemption of the preferred class "B" shares, which had been issued as a bonus to the holders of our common shares and preferred Class A shares, through a capital increase. The debentures are not redeemable or convertible and cannot be traded. In order to permit trading of the debentures, we have requested their registry with the CVM. After the CVM authorizes the registration, holders will be able to trade the debentures.

Under Central Bank regulations, pre-privatization shareholders that held their shares through our American depositary receipt program were not permitted to receive the debentures or any financial benefits relating to the debentures. We sought approval from the Central Bank to (i) allow the depositary to hold the debentures on behalf of the holders of American depositary receipts, and transfer any financial benefits relating to the debentures as soon as they begin to trade; and (ii) contribute these debentures to a Brazilian investment fund to be created by the depositary, which stocks would be distributed to the holders of American depositary receipts. The Central Bank rejected our request. We intend to renew our request to the Central Bank after the debentures begin to trade, but we cannot assure you that we will succeed. Therefore, unless the Central Bank approves our request, the debentures will not have any value for holders of American depositary receipts.

Under the terms of the debentures, holders will have the right to receive semi-annual payments equal to an agreed percentage of our net revenues (revenues less value added tax, transport fee and insurance expenses related to the trading of the products) from certain identified mineral resources that we owned at April 1997, to the extent that we exceed defined thresholds of sales volume relating to mineral resources, and from the sale of mineral rights that we owned at April 1997. Our obligation to make payments to the holders will cease when the relevant mineral resources are exhausted. Based on current production and sales levels, and on the estimates of production and sales of our new projects, we estimate that we would begin making payments related to gold in approximately 2003, payments related to copper in approximately 2004, and payments related to iron ore and other mineral resources in later years.

The table below summarizes the amounts we will be required to pay under the debentures, based on the net revenues we earn from the sale of identified mineral resources and mineral rights.

Area	Mineral	Required Payments by CVRD
Southern System (including Urucum)	Iron ore	1.8% of net revenue, after total sales volume from May 1997 exceeds 1.7 billion
Northern System	Iron ore	tons 1.8% of net revenue, after total sales volume from May 1997 exceeds 1.2 billion
Pojuca, Andorinhas, Liberdade and Sossego	Gold and Copper and by-products	tons 2.5% of net revenue from the beginning of commercial sales, as adjusted in proportion to our interest in these projects
Igarapé Bahia and Alemão	Gold	2.5% of net revenue, (i) from the beginning of commercial sales with regard to copper and by-products, and (ii) after total sales volume from May 1997 exceeds 70 tons of gold with regard to gold, as adjusted in proportion to our interest in these projects
Fazenda Brasileiro	Gold	2.5% of net revenue, after total sales volume from May 1997 exceeds 26 tons of gold
Other areas, excluding Carajás/Serra Leste and		2.5% of net revenue from the beginning of
Salobo Other areas owned at May 1997	by-products Other minerals	commercial production 1% of net revenue, 4 years after the beginning of commercial sales
All areas	Sale of mineral rights owned at May 1997	1% of the sales price

#### Principal Shareholder

Through the Brazilian government's privatization program, the by-laws of Valepar restrict concentration of ownership of Valepar shares by particular types of investors for a period of five years through May 9, 2002. The by-laws of Valepar state that no single investor or group of affiliated investors may hold more than 45% of Valepar's outstanding capital stock. In addition, joint shareholdings in Valepar by any group of iron ore producers or any group of steel producers, and iron ore trading companies combined, may not exceed 45% of Valepar's outstanding capital stock. Finally, shareholdings in Valepar by individual large iron ore producers, steel producers or iron ore trading companies may not exceed 10% of Valepar's outstanding capital stock.

The shareholders of Valepar have entered into a shareholders' agreement, ending in 2017. This agreement:

- gives rights of first refusal on any transfer of Valepar shares and preemptive rights on any new issue of Valepar shares,
- prohibits encumbrances on Valepar shares (other than in connection with financing our acquisition),
- requires each party generally to retain control of its special purpose company holding its interest in shares of Valepar,
- allocates Valepar's and our board seats, and
- establishes super-majority voting requirements for certain matters relating to Valepar or to us.

BNDESPAR has a golden share in Valepar giving it a veto right over:

- any change in Valepar's corporate purpose,
- the liquidation of Valepar,

- a change in ownership of Valepar's shares if such change were to increase concentration of the
  ownership of Valepar over specified limits by participants in the iron ore, steel or iron ore trading
  businesses, and
- any transfer of Valepar's shares to anyone until May 2002 if the transfer were to result in such person owning more than 45% of Valepar's shares.

Another agreement among Valepar's shareholders, ending in 2002, contains similar restrictions on transfers.

Continuing Relationship with the Brazilian Government and BNDES

From time to time, in the ordinary course of our business, we enter into transactions with other entities which the Brazilian government owns or controls. See *Item 7.B. Related Party Transactions*. The most significant of these transactions is with Eletronorte, a state-owned company. Pursuant to a contract between Albras and Eletronorte, Albras is able to purchase electricity at favorable rates. We are currently seeking to renegotiate this contract, which expires in May 2004. For more information on our Eletronorte contract, see *Item 4.B., 4.C. and 4.D. Business Overview, Organizational Structure, Property, Plants and Equipment—Holdings—Aluminum Business—Aluminum.* No other entity controlled by the Brazilian government, by itself or in the aggregate, accounted for a significant percentage of our consolidated revenues or purchases in 2000.

We have also entered into a Mineral Risk Contract with BNDES relating to prospecting authorizations for mining regions where drilling and exploration are still in their early stages. This contract provides for the joint development of certain unexplored mineral deposits in the Carajás region, which is part of the Northern System. BNDES is also our partner in Project 118, Alemão and Cristalino, which are joint ventures through which we conduct our copper mining exploration and development. For more information on these joint ventures, see *Item 4.B.*, *4.C. and 4.D. Business Overview, Organizational Structure, Property, Plants and Equipment—Non-Ferrous Minerals*.

As a result of the transfer of our voting control to Valepar, we are no longer subject to various regulatory requirements and operating restrictions applicable to Brazilian governmental entities. However, in connection with our privatization, the Brazilian government retained special rights with respect to our and Valepar's future decisions and caused us to enter into certain agreements which may restrict our activities and results of operations in the future. We discuss these restrictions below.

#### Golden Share

The Brazilian government holds one golden share, which confers upon its holder veto rights over certain changes, including:

- our name,
- the headquarters of our head office,
- our corporate purpose as regards the working of mineral deposits, and
- our continued operation of integrated iron ore mining systems.

For a more detailed description of the golden share, see *Item 10.B. Memorandum and Articles of Association—Common Shares and Preferred Shares*.

Since the privatization, the Brazilian government has not exercised its veto rights and, consequently, has refrained from interfering in our decision-making process.

### 7.B. Related Party Transactions

At December 31, 2001, we had extended guarantees for borrowings obtained by affiliates and joint ventures in the amount of US\$702 million of which US\$492.5 million is denominated in U.S. dollars and the remaining US\$210 million in Brazilian currency. See note 15(a) to our consolidated financial statements.

For information regarding investments in affiliated companies and joint ventures and for information regarding transactions with major related parties, see notes 10 and 17 to our consolidated financial statements.

The Brazilian government owns or controls entities with which we enter into transactions in the ordinary course of business. See *Item 7.A. Major and Selling Shareholders – Major Shareholders*.

BNDES, in its role as an economic development bank, is involved with us as a lender, partner and/or co-investor in a number of projects, and will probably continue to do so in the future.

Current activities of BNDES related to us include:

- investments in a number of our joint ventures
- entering into mineral risk contracts with us, and
- providing financing for our expansion

Our consolidated balance sheet at December 31, 2001 includes loans repayable to BNDES in the aggregate amount of US\$163 million.

Further, one of our directors is also a managing director of BNDES, one of our alternate directors is the chief executive officer of BNDES, one of our executive officers was a director of an affiliate of BNDES and one of our directors is the Deputy Secretary of the National Treasury. BNDESPAR, an affiliate of BNDES, also owns eleven percent of our largest shareholder, Valepar.

### 7.C. Interests of Experts and Counsel

Not applicable.

### **Item 8. Financial Information**

### 8.A.1-6. Consolidated Statements and Other Financial Information

For our consolidated financial statements see Item 18. Financial Statements.

### 8.A.7. Legal Proceedings

We and our subsidiaries are defendants in numerous legal actions in the normal course of business, including civil, administrative, tax, social security and labor proceedings. We have set aside or deposited in court amounts to cover estimated contingency losses due to adverse legal judgments. Based on the advice of our legal counsel, we believe that the provision made against contingent losses is sufficient to cover probable losses in connection with such actions.

Conselho Administrativo de Defesa Econômica, known as CADE, the Brazilian antitrust regulator, has been conducting inquiries into our principal lines of business to determine whether undue concentration exists in our respective industries. One of such inquiries that CADE made was in the context of our privatization and involved our railroad system. In November 2001, CADE issued a favorable opinion regarding this matter, on condition that we periodically provide certain financial information to CADE and to the Ministry of Transportation.

Numerous lawsuits challenging the legality of our privatization are pending, including a number of class- action lawsuits. We do not believe that, individually or in the aggregate, these actions will adversely affect the course of the privatization process or otherwise have a material adverse effect on us.

We are currently a defendant in two separate actions brought by the municipality of Itabira, in the state of Minas Gerais. It alleges that our Itabira iron ore mining operations have caused environmental and social damages. In one of the actions, filed in August 1996, the municipality of Itabira alleges that our Itabira iron ore mining operations have caused environmental and social damages and claims damages with respect to the degradation of the site of one of our mines, as well as the immediate restoration of the affected ecological complex and the performance of compensatory environmental programs in the region. The damages sought, as adjusted from the date of the claim, amount to

approximately US\$535 million. We believe that this amount is significantly higher than the amount we would actually be responsible for in the event that we were found liable. We have requested the annulment of this action as it represents no actual controversy. In fact, on June 5, 2000, the local environmental authorities granted an operating license to our Itabira iron ore mining operations. This license sets forth conditions regarding the environmental restoration of the degraded site and the performance of compensatory environmental programs. We intend to continue complying with these conditions. In the other action, the municipality of Itabira is claiming the right to be reimbursed for expenses it has incurred in connection with public services rendered as a consequence of our mining activities. We believe that this action is without merit. We are vigorously defending both pending actions.

#### 8.A.8. Dividend Distributions

Under the Brazilian Corporation Law, shareholders are generally entitled to receive an annual mandatory dividend set forth in the company's by-laws, which may not be lower than 25% of adjusted net income for the relevant year, calculated in accordance with the Brazilian Corporation Law. Accordingly, our by-laws prescribe that we must distribute to our shareholders an amount equal to not less than 25% of the amount of profits available for distribution with respect to each fiscal year, unless the board of directors advises our shareholders at the general shareholders' meeting that payment of the required distributions for the preceding fiscal year is inadvisable in light of our financial condition. The fiscal council must review any such determination and report to the shareholders and to the CVM. The shareholders must also approve the recommendation of the board of directors with respect to any required distributions. To date, our board of directors has never determined that a payment of the required distribution amount was inadvisable.

In addition to any required distributions, the board of directors may recommend to the shareholders the payment of distributions from other funds that are legally available.

Since our privatization in 1997, and following a recommendation from Valepar, our principal shareholder, we have distributed a dividend equal to at least 50% of the amount of profits available for distribution with respect to each fiscal year.

Holders of preferred class A shares and the golden share are entitled to receive an amount equal to 6% of their pro rata share of our paid-in capital prior to any distribution to holders of preferred class B shares, if any are issued, or to holders of common shares. Holders of preferred class B shares, if any are issued, are entitled to receive an amount equal to 6% of their pro rata share of our paid-in capital prior to any distribution to holders of common shares and to any additional distribution to holders of preferred class A shares and the golden share. After holders of common shares receive distributions per share in an amount equal to the preferential dividend of holders of preferred shares, all holders of shares receive the same additional distribution amount per share.

Since our privatization, we have had sufficient distributable amounts to be able to distribute equal amounts to both common and preferred shareholders. For a discussion on our preferred class A and preferred class B shares, see *Item 10.B. Memorandum and Articles of Association — Common Shares and Preferred Shares*.

According to Law No. 10,303, the recently enacted law that amended the Brazilian Corporation Law, we will be required to amend our by-laws in order to modify the rights granted to holders of preferred shares. For a detailed description of this requirement, see *Item 10.B. Memorandum and Articles of Association—New Provisions in the Brazilian Corporation Law*.

We may make distributions either in the form of dividends or in the form of interest on shareholders' equity. Dividends with respect to the American depositary shares, and to non-resident holders of common shares, will not be subject to Brazilian withholding tax, except for dividends declared based on profits generated prior to December 31, 1995. These dividends will be subject to a 15% Brazilian withholding tax. Distributions of interest on shareholders' equity to shareholders, including holders of American depositary receipts, are currently subject to Brazilian withholding tax of 15%. We pay distributions in Brazilian currency.

We are required to hold an annual shareholders' meeting by April 30 of each year at which an annual dividend may be declared. Additionally, our board of directors may declare interim dividends. Under the Brazilian Corporation Law, dividends are generally required to be paid to the holder of record on a dividend declaration date within 60 days

following the date the dividend was declared, unless a shareholders' resolution sets forth another date of payment, which, in either case, must occur prior to the end of the fiscal year in which the dividend was declared. A shareholder has a three-year period from the dividend payment date to claim dividends (or payments of interest on shareholders' equity) in respect of its shares, after which we will have no liability for such payments. Since 1997, all cash distributions we have made have been in the form of interest on shareholders' equity.

We will make cash distributions on the common shares and preferred class A shares underlying the American depositary shares in Brazilian currency to the custodian on behalf of the depositary. The custodian will then convert such proceeds into U.S. dollars and will cause such U.S. dollars to be delivered to the depositary for distribution to holders of American depositary receipts. For more information on Brazilian tax policies regarding dividend distributions, see *Item 10.E. Taxation—Brazilian Tax Considerations*.

The table below sets forth the dollar equivalent of cash distributions we paid to holders of common shares and preferred shares for the periods indicated. For your convenience, we have calculated U.S. dollar conversions using both the commercial market rate in effect on the date of payment and the exchange rate at June 24, 2002 of R\$2,827 per US\$1.00. We stated amounts gross of any applicable withholding tax.

Year	Payment Date	U.S. Dollars per Share at Payment Date	U.S. Dollars per Share at June 24, 2002
1997	May 30	0.48	0.17
	September 2	0.30	0.11
1998	May 8	0.88	0.36
	August 31	0.64	0.27
1999	January 15	0.44	0.23
	March 31	0.29	0.18
	August 20	0.57	0.39
2000	March 1	0.66	0.41
2001	February 20	1.66	1.18
2001	December 10	0.98	0.82
2002	April 30	0.98	0.82

# 8.B. Significant Changes

Not applicable.

# Item 9. The Offer and Listing

# 9.A.1-3. Offering Details

Not applicable.

# 9.A.4. Price History of Stock

The table below sets forth trading information for our preferred and common American depositary shares, as reported by the New York Stock Exchange (and for periods prior to June 2000, reported by the National Quotations Bureau, Inc.), and our preferred shares and our common shares, as reported by the BOVESPA, for the periods indicated.

	Reais per Common Share		Reais per Class A		American	per Preferred Depositary nare	Common	llars per American rry Share
	High	Low	High	Low	High	Low	High	Low
1997	R\$33.00	R\$17.00	R\$31.50	R\$18.40	US\$28.51	US\$16.87	_	_
1998	27.00	10.00	29.10	13.00	25.13	11.38		
1999	42.00	9.80	50.00	13.80	26.50	10.87	_	

_	Reais per Common Share		Reais per P Class A		U.S. Dollars po American D Shar	epositary	U.S. Dollars per Common American Depositary Share		
_	High	Low	High	Low	High	Low	High	Low	
2000	52.40	33.00	59.00	38.82	33.13	19.75	_	_	
2001	55.00	42.70	58.70	44.00	26.98	18.65	_	_	
1Q00	52.40	33.00	59.00	42.00	33.13	22.75	_	_	
2Q00	46.00	35.00	53.50	40.01	29.00	22.62	_	_	
3Q00	49.00	41.21	54.00	44.97	29.75	24.44	_	_	
4Q00	46.50	37.00	47.80	38.82	25.56	19.75	_	_	
1Q01	51.00	42.70	53.60	44.00	26.98	23.05	_	_	
2Q01	54.00	46.50	58.60	49.05	25.70	22.05	_	_	
3Q01	55.00	46.40	55.00	45.50	23.15	18.65	_		
4Q01	54.00	47.00	58.70	49.60	23.61	19.00	_		
December 2001	53.40	48.00	55.00	51.48	23.61	21.35	_	_	
January 2002	55.40	50.00	56.50	50.70	23.45	21.52	_		
February 2002	62.32	53.80	60.50	54.65	25.45	22.40	_		
March 2002	65.70	59.40	64.20	58.50	27.49	24.80	27.39	26.15	
April 2002	66.50	61.50	66.30	59.80	28.35	25.75	28.46	26.60	
May 2002	75.99	64.60	74.50	63.52	29.51	26.90	30.00	27.00	
June 2002 <sup>(1)</sup>	78.01	71.00	75.90	65.80	29.30	23.70	30.00	25.68	
(1)through June 25, 2002									

<sup>(1)</sup>through June 25, 2002

# 9.A.5-7. Listing Details

Not applicable.

### 9.B. Plan of Distribution

Not applicable.

### 9.C. Markets

Our publicly traded share capital consists of common shares and preferred shares, each without par value. Our common shares and our preferred shares are publicly traded in Brazil on the São Paulo stock exchange, known as BOVESPA, under the ticker symbols VALE3, and VALE5, respectively. Our common shares and preferred shares also trade on the LATIBEX, under the ticker symbols XVALO and XVALP, respectively. The LATIBEX is an electronic market created in 1999 by the Madrid stock exchange in order to enable trading of Latin American equity securities in euro denomination.

Our common American depositary shares, each representing one common share, have traded on the New York Stock Exchange since March 2002, under the ticker symbol RIO. Our preferred American depositary shares, each representing one preferred share, have traded on the New York Stock Exchange since June 2000, under the ticker symbol RIOPR. Prior to June 20, 2000, the preferred American depositary shares traded in the over-the-counter market. JPMorgan Chase Bank serves as the depositary for the preferred American depositary shares. At December 31, 2001, there were 57,754,261 American depositary shares outstanding, representing 41.7% of our preferred shares or 14.9% of our total share capital.

# 9.D., 9.E. and 9.F. Selling Shareholders, Dilution and Expenses of the Issue

Not applicable.

#### Item 10. Additional Information

### 10.A. Share Capital

For a description of our common and our preferred shares, including voting rights and preemptive rights, see *Item 10.B. Memorandum and Articles of Association—Common Shares and Preferred Shares*.

The table below provides a recent history of changes in our share capital.

	Common Shares	Preferred Class A Shares
Shares authorized	300,000,000	600,000,000
Shares issued prior to December 31, 1999	249,983,143	138,575,912
Shares repurchased prior to December 31, 1999	_	(3,659,311)
Shares outstanding on December 31, 1999	249,983,143	134,916,601
Shares repurchased during 2000	(7,300)	_
Shares outstanding on December 31, 2000	249,975,843	134,916,601
Shares repurchased during 2001	(4,707,870)	3,659,220
Shares outstanding on December 31, 2001	245,267,973	138,575,821
Shares repurchased during 2002	_	(4,660)
Shares outstanding on May 31, 2002	245,267,973	138,571,161

Vale Overseas' issued share capital is US\$1,000.00 divided into 1,000 ordinary shares. All of the issued shares are fully paid and are held by us.

### 10.B. Memorandum and Articles of Association

### **Company Objects and Purposes**

Clause 2 of the by-laws defines our corporate purpose to include (1) working mineral deposits in Brazil and abroad by mining, concentrating, processing, transporting, shipping and trading minerals, (2) building, operating and exploiting railway traffic, (3) operating maritime terminals, including support for in port navigation, (4) exploiting, processing and trading forestry materials, (5) engaging, in Brazil and abroad, in other activities in support of our corporate purpose, including research, industrial processing, trading, importing and exporting goods and rendering services, and (6) incorporating or investing in corporations acting within the scope of our corporate purpose.

### **Directors' Powers**

Under the Brazilian Corporation Law, if a director or an executive officer has a conflict of interest with the company in connection with any proposed transaction, the director or executive officer may not vote in any decision of the board of directors or of the board of executive officers regarding such transaction and must disclose the nature and extent of the conflicting interest for transcription in the minutes of the meeting. In any case, a director or an executive officer may not transact any business with the company, including any borrowings, except on reasonable or fair terms and conditions that are identical to the terms and conditions prevailing in the market or offered by third parties. Under our by-laws, shareholders set the aggregate compensation payable to directors and executive officers. The board of directors allocates the compensation among its members and the executive officers. See *Item 6.A.*, *6.B. and 6.C. Directors and Senior Management, Compensation and Board Practices—Compensation*. Our by-laws do not establish any mandatory retirement age limits.

#### **Common Shares and Preferred Shares**

Set forth below is certain information concerning our authorized and issued capital stock and a brief summary of certain significant provisions of our by-laws and the Brazilian Corporation Law. This description does not purport to be complete and is qualified by reference to our by-laws (an English translation of which has been filed with the Commission) and to the Brazilian Corporation Law.

#### General

Our by-laws authorize the issuance of (1) up to 300 million common shares and (2) up to 600 million preferred class A shares or preferred class B shares, in each case based solely on the approval of the board of directors without any additional shareholder approval. There are currently no preferred class B shares outstanding.

Each common share entitles the holder thereof to one vote at meetings of our shareholders. Holders of common shares are not entitled to any preference relating to our dividends or other distributions or any preference upon our liquidation.

Holders of preferred class A shares are generally entitled to the same voting rights as holders of common shares, except with respect to the election of members of the board of directors, and are entitled to a minimum annual non-cumulative preferential dividend of 6% of their pro rata share of our paid-in capital prior to any distribution to holders of common shares or to holders of preferred class B shares, if any. Holders of preferred class A shares and the golden share may also elect one member of the permanent fiscal council and the respective alternate. Non-controlling holders of common shares comprising at least 10% of the common shares outstanding may also elect one member of the fiscal council and an alternate. As of March 1, 2002, holders of preferred shares and common shares may in certain circumstances combine their respective holdings to elect members of our board of directors. See *New Provisions in Brazilian Corporation Law*. The preferred class A shares are not entitled to any preference in the case of our liquidation.

The golden share is a preferred share. It is required to be held by the Brazilian government. The holder of the golden share is entitled to the same rights (including with respect to voting, dividend preference and liquidation preference) as holders of preferred class A shares. In addition, the holder of the golden share is entitled to veto any of our proposed action relating to the following matters:

- (1) a change in our name;
- (2) a change in the location of our head office;
- (3) a change in our corporate purpose as regards the working of mineral deposits;
- (4) any liquidation of our company;
- (5) any disposal or winding up of activities of any one or more of the following stages of the integrated systems of our iron ore mining:
  - (a) mineral deposits, ore deposits, mines;
  - (b) railways:
  - (c) ports and marine terminals;
- (6) any change in the by-laws relating to the rights accorded to the classes of capital stock issued by us; and
- (7) any change in the by-laws relating to the rights accorded the golden share.

# Calculation of Distributable Amount

At each annual shareholders' meeting, the board of directors is required to recommend how to allocate our earnings for the preceding fiscal year. For purposes of the Brazilian Corporation Law, a company's net income after income taxes and social contribution taxes for such fiscal year, net of any accumulated losses from prior fiscal years and amounts allocated to employees' and management's participation in earnings represents its "net profits" for such fiscal year. In accordance with the Brazilian Corporation Law, an amount equal to our "net profits," as further reduced by amounts allocated to the legal reserve, to the contingency reserve or the unrealized income reserve established by us in compliance with applicable law (as hereinafter discussed) and increased by reversions of reserves constituted in prior years, will be available for distribution to shareholders in any particular year. Such amount, the adjusted net profits, is herein referred to as the distributable amount. We may also establish discretionary reserves, reserves for investment projects and fiscal investment reserves, as discussed below.

*Legal Reserve.* Under the Brazilian Corporation Law, we are required to maintain a legal reserve to which we must allocate 5% of our "net profits" for each fiscal year until the amount of the reserve equals 20% of our paid-in capital. Net losses, if any, may be charged against the legal reserve.

Discretionary Reserves. Under the Brazilian Corporation Law, a company may also provide for discretionary allocations of "net profits" to the extent set forth in its by-laws. Our by-laws provide for one discretionary depletion reserve which may be taken into account in allocating net profits for any fiscal year. We currently maintain a fiscal incentive depletion reserve established in respect of certain mining operations. Appropriations to the fiscal incentive depletion reserve are deductible for tax purposes. The discretionary depletion reserve has not been used since 1996, when the related fiscal incentive expired. For more details, see note 13 to the consolidated financial statements. There are no limits on the size or amount of proceeds that may be retained by our board in the discretionary depletion reserve. However, the sum of the legal reserve, the depletion reserve and the reserve for investment projects may not exceed the amount of our paid-in capital.

Contingency Reserve. Under the Brazilian Corporation Law, a portion of our "net profits" may also be discretionally allocated to a "contingency reserve" for an anticipated loss that is deemed probable in future years. Any amount so allocated in a prior year must be either reversed in the fiscal year in which the loss was anticipated if such loss does not in fact occur or charged off in the event that the anticipated loss occurs.

Reserve for Investment Projects. Under the Brazilian Corporation Law, we may allocate a portion of our "net profits" for discretionary appropriations for plant expansion and other capital investment projects, the amount of which is based on a capital budget previously presented by management and approved by shareholders. Under Law 10,313, capital budgets with duration longer than one year must be revised at each annual shareholder's meeting. After completion of the relevant capital projects, we may retain the appropriation until shareholders vote to transfer all or a portion of the reserve to capital or retained earnings.

Unrealized Income Reserve. Under the Brazilian Corporation Law prior to the enactment of Law 10,313, if the amount of "unrealized income" for any particular year exceeds the sum allocated to the legal reserve, the discretionary reserves, the contingency reserve and the reserve for investment projects in such year, such excess may be allocated to an "unrealized income reserve." "Unrealized income" in any particular year represents the sum of price-level restatement of certain balance sheet accounts in such year in which the system of price-level restatement was applicable (up to December 31, 1995), the share of equity earnings of subsidiary and associated companies in such year and profits from installment sales to be received after the end of the next succeeding fiscal year. As of March 1, 2002, under Law 10,313, which amends the Brazilian Corporation Law, the amount by which the mandatory dividend exceeds the "realized" portion of net profits for any particular year may be allocated to the unrealized income reserve. The "realized portion of net profits is the amount by which "net profits" exceed the sum of (i) our net positive results, if any, from the equity method of accounting for earnings and losses of our subsidiaries and certain affiliates, and (ii) the profits, gains, or return obtained on transactions maturing after the end of the following fiscal year.

Fiscal Incentive Investment Reserve. Under the Brazilian tax laws, a portion of "net profits" may also be allocated to a general "fiscal incentive investment reserve" in amounts corresponding to reductions in our income tax generated by credits for particular government-approved investments.

The Brazilian Corporation Law provides that all discretionary allocations of "net profits," including discretionary reserves, the contingency reserve, the unrealized income reserve and the reserve for investment projects, are subject to approval by the shareholders voting at the annual meeting and can be transferred to capital or used for the payment of dividends in subsequent years. The fiscal incentive investment reserve and legal reserve are also subject to approval by the shareholders voting at the annual meeting and may be transferred to capital but are not available for the payment of dividends in subsequent years.

Our calculation of "net profits" and allocations to reserves for any fiscal year are determined on the basis of financial statements prepared in accordance with the Brazilian Corporation Law. Our consolidated financial statements have been prepared in accordance with U.S. GAAP and, although our allocations to reserves and dividends will be reflected in these financial statements, investors will not be able to calculate such allocations or required dividend amounts from our consolidated financial statements.

### Mandatory Dividend

Our by-laws prescribe that we must distribute to our shareholders in the form of dividends or interest on shareholders' equity an annual amount equal to not less than 25% of the distributable amount, referred to as the mandatory dividend, unless the board of directors advises our shareholders at our general shareholders' meeting that payment of the mandatory dividend for the preceding year is inadvisable in light of our financial condition. Dividends paid to holders of our preferred shares will be computed in determining whether we have paid the mandatory dividend. The fiscal council must review any such determination and report it to the shareholders and the CVM. In addition to the mandatory dividend, our board of directors may recommend to the shareholders payment of dividends from other funds legally available therefore. Any payment of interim dividends will be netted against the amount of the mandatory dividend for that fiscal year. The shareholders must also approve the recommendation of the board of directors with respect to any required distribution. The amount of the mandatory dividend is subject to the size of the legal reserve, the contingency reserve, and the unrealized income reserve. The amount of the mandatory dividend is not subject to the size of the discretionary depletion reserve. See —Calculation of Distributable Amount. To date, our board of directors has never determined that payment of the mandatory dividend was inadvisable.

Since our privatization in 1997, and following a recommendation from Valepar, our principal shareholder, we have distributed a dividend equal to at least 50% of the amount of profits available for distribution with respect to each fiscal year.

# Dividend Preference of Preferred Shares

Pursuant to our by-laws, holders of preferred class A shares and the golden share are entitled to a minimum annual non-cumulative preferential dividend equal to 6% of their pro rata share of our paid-in capital ahead of dividends to holders of preferred class B shares and common shares. In addition, any future holders of our authorized but unissued preferred class B shares will be entitled to a minimum annual non-cumulative preferential dividend equal to 6% of their pro rata share of our paid-in capital ahead of dividends to holders of common shares. To the extent that dividends are declared by us in any particular year in amounts which exceed the preferential dividends on preferred shares, and after holders of common shares have received distributions equivalent, on a per share basis, to the preferential dividends on preferred shares, holders of common shares and preferred shares shall receive the same additional dividend amount per share. Since the first step of our privatization in 1997, we have had sufficient distributable amounts to be able to distribute equal amounts to both common and preferred shareholders.

#### Other Matters Relating to Preferred Shares

Our by-laws do not provide for the conversion of preferred shares into common shares. In addition, the preferred shares do not have any preference upon our liquidation and there are no redemption provisions associated with the preferred shares.

### Payments on Shareholders' Equity

Pursuant to a change in Brazilian tax law effective January 1, 1996, Brazilian companies are permitted to pay limited additional amounts to holders of equity securities and treat such payments as an expense for Brazilian income tax purposes. The purpose of the tax law change is to encourage the use of equity investments as opposed to indebtedness to finance corporate activities. In accordance with Law No. 9,249 dated December 26, 1995, our by-laws provide for the distribution of interest on shareholders' equity as an alternative form of payment to shareholders. The interest rate applied is generally limited to the Brazilian long-term interest rate, or TJLP, for the applicable period. The deduction of the amount of interest paid cannot exceed the greater of (1) 50% of net income (after the deduction of the provision of social contribution on net profits and before the deduction of the provision of the corporate income tax) before taking into account any such distribution for the period in respect of which the payment is made or (2) 50% of the sum of retained earnings and profit reserves. Any payment of interest on shareholders' equity to shareholders is subject to Brazilian withholding income tax at the rate of 15%, except for beneficiary located in a tax haven jurisdiction (i.e. country that does not impose income tax or that imposes it at a maximum rate lower than 20%), in which case the rate is 25%. Under our by-laws, the amount paid to shareholders as interest on shareholders' equity (net of any withholding tax) may be included as part of any mandatory dividend. Under the Brazilian Corporation Law, we are obligated to distribute to shareholders an amount sufficient to ensure that the net amount received, after payment by us

of applicable Brazilian withholding taxes in respect of the distribution of interest on shareholders' equity, is at least equal to the mandatory dividend.

Voting Rights

Each common share entitles the holder thereof to one vote at meetings of our shareholders. Holders of preferred shares are entitled to the same voting rights as holders of common shares except that they may not vote on the election of members of the board of directors, except in the event of dividend arrearages, as described below. One of the members of the permanent fiscal council and his or her alternate are elected by majority vote of the holders of preferred shares. As of March 1, 2002, holders of preferred shares and common shares may, in certain circumstances, combine their respective holdings to elect members of our board of directors. See —New Provisions in the Brazilian Corporation Law.

The golden share entitles the holder thereof to the same voting rights as holders of preferred shares. The golden share also confers certain other significant voting rights in respect of particular actions, as described under —*General*.

The Brazilian Corporation Law provides that non-voting or restricted-voting shares, such as the preferred shares, acquire unrestricted voting rights beginning when a company has failed for three consecutive fiscal years (or for any shorter period set forth in a company's constituent documents) to pay any fixed or minimum dividend to which such shares are entitled and continuing until payment thereof is made. Our by-laws do not set forth any such shorter period.

Any change in the preferences or advantages of our preferred class A shares, or the creation of a class of shares having priority over the preferred class A shares, would require the approval of holders of a majority of the outstanding preferred class A shares, voting as a class at a special meeting.

Shareholders Meetings

A general shareholders' meeting convenes each year to decide all matters relating to our corporate purposes and to pass such resolutions as they deem necessary for our protection and well-being.

Pursuant to the Brazilian Corporation Law, shareholders voting at a general shareholders' meeting have the power, among other powers, to:

- amend the by-laws;
- elect or dismiss members of the board of directors and members of the fiscal council at any time;
- receive the annual reports by management and accept or reject management's financial statements, including the allocation of net profits and the distributable amount for payment of the mandatory dividend and allocation to the various reserve accounts;
- authorize the issuance of debentures:
- suspend the rights of a shareholder in default of obligations established by law or by the by-laws;
- accept or reject the valuation of assets contributed by a shareholder in consideration for issuance of capital stock;
- pass resolutions to reorganize our legal form, to merge, consolidate or split us, to dissolve and liquidate us, to elect and dismiss our liquidators and to examine their accounts; and
- authorize management to file for bankruptcy or to request a *concordata*, a procedure involving protection from creditors similar in nature to reorganization under the U.S. Bankruptcy Code.

All shareholders meetings, including the annual shareholders' meeting, are convened by publishing, no fewer than fifteen days prior to the scheduled meeting date and no fewer than three times, a notice in the Diário Oficial do Estado do Rio de Janeiro and in a newspaper with general circulation in the city where we have our registered office, which is Rio de Janeiro. Our shareholders have previously designated Jornal do Commercio for this purpose. Also,

as our shares are traded on the São Paulo Stock Exchange, we must publish a notice in the São Paulo based Diário do Comércio e da Indústria. Such notice must contain the agenda for the meeting and, in the case of an amendment to our by-laws, an indication of the subject matter. In addition, under our by-laws, the holder of the golden share is entitled to a minimum of 15 days prior notice of any general shareholders' meeting to consider any proposed action subject to the veto rights accorded to the golden share. See —Common Shares and Preferred Shares—General.

A shareholders' meeting may be held if shareholders representing at least one-quarter of the voting capital are present. If no such quorum is present, notice must again be given in the same manner as described above, and a meeting may then be convened without any specific quorum requirement, subject to the minimum quorum and voting requirements for certain matters, as discussed below. A shareholder without a right to vote may attend a general shareholders' meeting and take part in the discussion of matters submitted for consideration.

Except as otherwise provided by law, resolutions of a shareholders' meeting are passed by a simple majority vote, abstentions not being taken into account. Under the Brazilian Corporation Law, the approval of shareholders representing at least one-half of the issued and outstanding voting shares is required for the types of action described below, as well as, in the case of clause (a) and clause (b), a majority of issued and outstanding shares of the affected class: (a) creating a new class of preferred shares or disproportionately increasing an existing class of preferred shares relative to the other classes of shares, other than to the extent permitted by the by-laws, which permit us to increase the number of preferred class B shares disproportionately in relation to the number of common and preferred shares; (b) changing a priority, preference, right, privilege or condition of redemption or amortization of any class of preferred shares or creating any class of non-voting preferred shares that has a priority, preference, right, condition or redemption or amortization superior to an existing class of shares, such as the preferred shares; (c) reducing the mandatory dividend; (d) changing the corporate purposes; (e) merging us with another company or consolidating or splitting us; (f) dissolving or liquidating us; (g) participating in a centralized group of companies as defined under the Brazilian Corporation Law; and (h) canceling any ongoing liquidation of us.

Whenever the shares of any class of capital stock are entitled to vote, each share is entitled to one vote.

Annual shareholders' meetings must be held by April 30 of each year. Shareholders' meetings are called, convened and presided over by the President or by the Vice-President of our board of directors. A shareholder may be represented at a general shareholders' meeting by an attorney-in-fact appointed not more than one year before the meeting, who must be a shareholder, a company officer or a lawyer. For a public company, such as us, the attorney-in-fact may also be a financial institution.

#### Redemption Rights

Our common shares and preferred shares are not redeemable, except that a dissenting, or, in certain cases, shareholder is entitled under the Brazilian Corporation Law to obtain redemption upon a decision made at a shareholders' meeting by shareholders representing at least 50% of the voting shares:

- (1) to create a new class of preferred shares or to disproportionately increase an existing class of preferred shares relative to the other classes of shares (unless such actions are provided for or authorized by the by-laws);
- (2) to modify a preference, privilege or condition of redemption or amortization conferred on one or more classes of preferred shares, or to create a new class with greater privileges than the existing classes of preferred shares;
- (3) to reduce the mandatory distribution of dividends;
- (4) to change our corporate purposes;
- (5) to merge us with another company or consolidate us;
- (6) to transfer all of our shares to another company in order to make us a wholly-owned subsidiary of such company, an incorporação de ações;

- (7) to approve the acquisition of control of another company at a price which exceeds certain limits set forth in the Brazilian Corporation Law;
- (8) to approve our participation in a centralized group of companies as defined under the Brazilian Corporation Law; or
- (9) in the event that the entity resulting from (a) a merger, (b) an "incorporação de ações" as described in clause (6) above, or (c) a spin-off that we conduct fails to become a listed company within 120 days of the general shareholders' meeting at which such decision was taken.
- (10) in the event that the entity resulting from (a) a merger, (b) an *incorporação de ações* as described in clause (6) above, or (c) a spin-off that we conduct fails to become a listed company within 120 days of the shareholders' meeting at which such decision was taken.

Only holders of shares adversely affected by the changes mentioned in items (1) and (2) above may require us to redeem their shares. The right of redemption mentioned in items (5), (6) and (8) above may only be exercised if our shares do not satisfy certain tests of liquidity at the time of the shareholder resolution. The right of redemption lapses 30 days after publication of the minutes of the relevant general shareholders' meeting, unless, in the case of items (1) and (2) above, the resolution is subject to confirmation by preferred shareholders (which must be made at a special meeting to be held within one year), in which case the 30 day term is counted from the publication of the minutes of the special meeting.

We would be entitled to reconsider any action giving rise to redemption rights within 10 days following the expiration of such rights if the redemption of shares of dissenting shareholders would jeopardize our financial stability. Law No. 9,457 dated May 5, 1997, which amended the Brazilian Corporation Law, contains provisions which, among other provisions, restrict redemption rights in certain cases and allow companies to redeem their shares at their economic value, subject to certain requirements. Our by-laws currently do not provide that our capital stock will be redeemable at its economic value and, consequently, any redemption pursuant to the Brazilian Corporation Law would be made at book value per share, determined on the basis of the last balance sheet approved by the shareholders; provided that if the general shareholders' meeting giving rise to redemption rights occurred more than 60 days after the date of the last approved balance sheet, a shareholder would be entitled to demand that his or her shares be valued on the basis of a new balance sheet dated within 60 days of such general shareholders' meeting.

# Preemptive Rights

Each of our shareholders has a general preemptive right to subscribe for shares in any capital increase, in proportion to his or her shareholding. A minimum period of 30 days following the publication of notice of a capital increase is allowed for the exercise of the right and the right is negotiable. Under our by-laws, our board of directors may decide not to extend preemptive rights to our shareholders or, under Law 10,303, to reduce the 30 days period for the exercise of preemptive rights, in each case with respect to any issuance of shares, debentures convertible into shares and warrants in the context of a public offering, subject to the limit on the number of shares that may be issued with the approval of the board without any additional shareholder approval. In the event of a capital increase which would maintain or increase the proportion of capital represented by preferred shares, holders of preferred American depositary receipts will have preemptive rights to subscribe only to newly issued preferred shares. In the event of a capital increase which would reduce the proportion of capital represented by preferred shares, holders of preferred American depositary receipts will have preemptive rights to subscribe for preferred shares, in proportion to their shareholdings, and for common shares only to the extent necessary to prevent dilution of their overall interest in us. In the event of a capital increase which would maintain or increase the proportion of capital represented by common shares, holders of common American depositary receipts will have preemptive rights to subscribe only to newly issued common shares. In the event of a capital increase which would reduce the proportion of capital represented by common shares, holders of common American depositary receipts will have preemptive rights to subscribe for preferred shares only to the extent necessary to prevent dilution of their overall interest in us.

### New Provisions in the Brazilian Corporation Law

On October 31, 2001, Law 10,303, a legislative act modifying the Brazilian Corporation Law, was enacted. The main goal of Law 10,303 is to broaden the rights of minority shareholders.

Law 10,303 could have a material impact on the shares represented by American depositary shares because it will, as of March 1, 2002:

- obligate our controlling shareholder to make a tender offer for our shares if it increases its interest in our share capital to a level that materially and negatively affects the liquidity of our shares, as defined by the CVM.
- require any acquiror of control to make a tender offer for our common shares at a price equal to 80% of the per share price paid for the controlling block of shares;
- authorize us to redeem minority shareholders' shares if, after a tender offer, our controlling shareholder increases its participation in our total share capital to more than 95%.
- entitle dissenting or, in certain cases, non-voting shareholders, to obtain redemption upon a decision to conduct a spin-off that results in (a) change of our corporate purpose, (b) a reduction in the mandatory dividend or (c) any participation in a group of companies (as defined by the Brazilian Corporation Law).
- require that preferred shares have one of the following advantages in order to be listed and to trade on a stock exchange: (i) priority in receipt of dividends, corresponding to at least 3% of the book value per share (after this priority condition is met, equal conditions apply to common shares); or (ii) dividends 10% higher than those paid for common shares; or (iii) tag-along right at 80% of the price paid to the controlling shareholder in case of a transfer of control. We may be required to amend our by-laws to contemplate one or ore of these advantages which may affect the holders of our preferred shares currently outstanding. No withdrawal rights will arise from such amendment if it is made before December 31, 2002.
- entitle shareholders that are not a controlling shareholder but that together hold
  - (i) preferred shares representing at least 10% of our total share capital or
  - (ii) common shares representing at least 15% of our voting capital;
- the right to appoint one member and an alternate to our board of directors. If no group of common or preferred shareholders meets the thresholds described above, shareholders holding preferred or common shares representing at least 10% of our total share capital are entitled to combined their holdings to appoint one member and an alternate to our board of directors. Until 2005, the board members that may be elected pursuant to (i) above or by the combined holdings of holders of preferred and common shares are to be chosen from a list of three names drawn up by the controlling shareholder. Any such members elected by the minority shareholders will have veto powers on the selection of our independent auditors.
- require controlling shareholders, shareholders that appoint members of our board of directors or
  fiscal council and members of our board of directors, board of executive officers or fiscal council
  to file immediately with the CVM and the stock exchanges (or the over-the-counter markets on
  which our securities are traded) a statement of any change in their shareholders.
- require us to send copies of the documentation we submit to our shareholders in connection with shareholders meetings to the stock exchanges on which our shares are most actively traded.

We are required to adapt our by-laws to these provisions by March 1, 2003.

### Form and Transfer

Our preferred shares and common shares are in book-entry form registered in the name of each shareholder or its nominee. The transfer of such shares is made under the Brazilian Corporation Law which provides that a transfer of shares is effected by our transfer agent, Banco Bradesco S.A., upon presentation of valid share transfer instructions to us by a transferor or its representative. When preferred shares or common shares are acquired or sold on a Brazilian stock exchange, the transfer is effected on the records of our transfer agent by a representative of a brokerage firm or the stock exchange's clearing system. Transfers of shares by a foreign investor are made in the same way and are executed by the investor's local agent, who is also responsible for updating the information relating to the foreign investment furnished to the Central Bank.

The São Paulo stock exchange, known as BOVESPA, operates a central clearing system through *Companhia Brasileira de Liquidação e Custódia*, or CBLC. A holder of our shares may participate in this system and all shares elected to be put into the system will be deposited in custody with CBLC (through a Brazilian institution that is duly authorized to operate by the Central Bank and maintains a clearing account with CBLC). The fact that such shares are subject to custody with the relevant stock exchange will be reflected in our registry of shareholders. Each participating shareholder will, in turn, be registered in the register of our beneficial shareholders that is maintained by CBLC and will be treated in the same way as registered shareholders.

#### 10.C. Material Contracts

None.

### 10.D. Exchange Controls and Other Limitations Affecting Security Holders

There are no restrictions on ownership of our capital stock by individuals or legal entities domiciled outside Brazil. However, the right to convert dividend payments and proceeds from the sale of preferred class A shares or common shares into currency and to remit such amounts outside Brazil is subject to restrictions under foreign investment legislation which generally requires, among other things, that the relevant investment be registered with the Central Bank. Foreign investors may register their investment under Law No. 4,131 of September 3, 1962 or Resolution No. 2,689 of January 26, 2000 of the National Monetary Council. Registration under Law No. 4,131 or Resolution No. 2,689 affords favorable tax treatment to foreign investors who are not resident in a tax haven jurisdiction and defined by Brazilian tax laws (i.e. country that does not impose income tax or where the maximum income tax rate is lower than 20%).

Under Resolution No. 2,689, foreign investors may invest in almost all financial assets and engage in almost all transactions available in the Brazilian financial and capital markets, provided that certain requirements are fulfilled. In accordance with Resolution No. 2,689, the definition of foreign investor includes individuals, legal entities, mutual funds and other collective investment entities, domiciled or headquartered abroad.

Under Resolution No. 2,689, a foreign investor must:

- appoint at least one representative in Brazil, with powers to perform actions relating to its investment.
- appoint an authorized custodian in Brazil for its investment,
- register as a foreign investor with the CVM, and
- register its foreign investment with the Central Bank.

Securities and other financial assets held by foreign investors pursuant to Resolution No. 2,689 must be registered or maintained in deposit accounts or under the custody of an entity duly licensed by the Central Bank or the CVM. In addition securities trading is restricted to transactions carried out on the São Paulo stock exchange or through organized over-the-counter markets licensed by the CVM, except for transfers resulting from a corporate reorganization, or occurring upon the death of an investor by operation of law or will.

Resolution No. 1,927 of the National Monetary Council, which is the restated and amended Annex V to Resolution No. 1,289, the Annex V Regulations, provides for the issuance of depositary receipts in foreign markets in respect of shares of Brazilian issuers. Accordingly, the proceeds from the sale of American depositary shares by holders of American depositary receipts outside Brazil are free of Brazilian foreign investment controls and holders of the American depositary shares who are not resident in a tax haven jurisdiction will be entitled to favorable tax treatment.

The right to convert dividend payments and proceeds from the sale of our capital stock into foreign currency and to remit such amounts outside Brazil is subject to restrictions under foreign investment legislation which generally requires, among other things, that the relevant investment be registered with the Central Bank. Restrictions on the remittance of foreign capital abroad could hinder or prevent the custodian for the preferred class A shares or common shares represented by American depositary shares, or holders who have exchanged American depositary shares for preferred class A shares or common shares, from converting dividends, distributions or the proceeds from any sale of preferred class A shares or common shares, as the case may be, into U.S. dollars and remitting such U.S. dollars abroad. Delays in, or refusal to grant any required government approval for conversions of Brazilian currency payments and remittances abroad of amounts owed to holders of American depositary shares could adversely affect holders of American depositary receipts.

The custodian will obtain a certificate of registration in the name of JPMorgan Chase Bank, the depositary. Pursuant to this certificate, the custodian and the depositary are able to convert dividends and other distributions with respect to the preferred class A shares or common shares represented by American depositary shares into foreign currency and to remit the proceeds outside Brazil. If a holder exchanges American depositary shares for preferred class A shares or common shares, the holder may continue to rely on the custodian's certificate of registration for only five business days after the exchange. After that, the holder must seek to register its investment directly with the Central Bank under Law No. 4,131 or Resolution No. 2,689. Thereafter, unless the holder has registered its investment with the Central Bank, such holder may not convert into foreign currency and remit outside Brazil the proceeds from the disposition of, or distributions with respect to, such preferred class A shares or common shares. The holder generally will be subject to less favorable Brazilian tax treatment than a holder of American depositary shares. See *Item 10.E. Taxation—Brazilian Tax Considerations*.

There are two principal foreign exchange markets in Brazil:

- the commercial rate exchange market, and
- the floating rate exchange market.

Most trade and financial foreign-exchange transactions, including transactions relating to the purchase or sale of shares or the payment of dividends or interest with respect to shares, are carried out on the commercial market. Only a Brazilian bank authorized to buy and sell currency in the commercial market may effect purchases of foreign currencies in that market. In both markets, rates are freely negotiated, but may be strongly influenced by Central Bank intervention. See *Item 3.A.3. Exchange Rates*.

Under Brazilian law, whenever there is a serious imbalance in Brazil's balance of payments or reasons to foresee a serious imbalance, the Brazilian government may impose temporary restrictions on the remittance to foreign investors of the proceeds of their investments in Brazil, and on the conversion of Brazilian currency into foreign currencies. Such restrictions may hinder or prevent the custodian or holders who have exchanged American depositary shares for underlying preferred class A shares or common shares from converting distributions or the proceeds from any sale of such shares, as the case may be, into U.S. dollars and remitting such U.S. dollars abroad.

#### 10.E. Taxation

The following summary contains a description of the principal Brazilian and U.S. federal income tax consequences of the ownership and disposition of preferred class A shares or American depositary shares. You should know that it does not purport to be a comprehensive description of all the tax considerations that may be relevant to a holder of preferred class A shares or American depositary shares.

Holders of preferred class A shares, common shares, or American depositary shares should consult their own tax advisors to discuss the tax consequences of the purchase, ownership and disposition of preferred class A shares, common shares or American depositary shares, including, in particular, the effect of any state, local or other national tax laws.

Although there is at present no income tax treaty between Brazil and the United States, the tax authorities of the two countries have had discussions that may result in such a treaty. We cannot predict whether or when such a treaty will enter into force or how it will affect the U.S. holders, as defined below, of preferred class A shares, common shares, or American depositary shares.

#### **Brazilian Tax Considerations**

The following discussion summarizes the principal Brazilian tax consequences of the acquisition, ownership and disposition of preferred class A shares, common shares, or American depositary shares to a holder who is not domiciled in Brazil for purposes of Brazilian taxation and, to a holder of preferred class A shares or common shares, who has registered his/her investment in preferred class A shares or common shares with the Central Bank as a U.S. dollar investment (in each case, a non-resident in Brazil holder). It is based on the tax laws of Brazil and regulations thereunder in effect on the date hereof, which are subject to change (possibly with retroactive effect).

Any change in such law may change the consequences we describe below. The following discussion summarizes the principal tax consequences applicable under current Brazilian law to non-Brazilian resident holders of preferred class A shares, common shares, or American depositary shares; it does not specifically address all of the Brazilian tax considerations applicable to any particular non-Brazilian holder. Therefore, each non-Brazilian resident holder should consult his or her own tax advisor concerning the Brazilian tax consequences of an investment in preferred class A shares, common shares, or American depositary shares.

Taxation of Dividends. Dividends, including dividends paid in kind, paid by us (1) to the depositary in respect of the preferred class A shares or common shares underlying the American depositary shares or (2) to a non-Brazilian resident holder in respect of preferred class A shares or common shares will not be subject to Brazilian withholding income tax for distribution of profits earned as of January 1, 1996. Dividends paid from profits generated before January 1, 1996 may be subject to taxation at varying rates, except in case of stock dividends, which are not subject to withholding income tax in Brazil unless we redeem the stock within five years from such distribution or the non-Brazilian holder sells the stock in Brazil within this five-year period.

Since January 1, 1996, Brazilian corporations may attribute interest on shareholders' equity, which they may pay in cash. They base the calculation on shareholders' equity as stated in the statutory accounting records. The interest rate applied may not exceed the TJLP as determined by the Brazilian Central Bank from time to time (in 2001 the annual rate was approximately 9.5%). Also, the amount paid may not be higher than the greater of (1) 50% of net income (after the deduction of the provision of social contribution on net profits but before taking into account such payment of interest and the provision of corporate income tax) for the relevant period or (2) 50% of the sum of retained earnings and profit reserves as of the beginning of the year in respect of which the payment is made.

The amount of interest attributed to shareholders is deductible for corporate income tax and social contribution on net profit purposes. Therefore, the benefit to us, as opposed to making a dividend payment, is a reduction in our corporate taxes charge equivalent to 34% of such amount. Subject to certain limitations, income tax is withheld from the shareholders on interest payments at the rate of 15%, except if the beneficiary is located in a tax haven jurisdiction, in which case the applicable rate is 25%. As defined by Brazilian law, a tax haven jurisdiction is a country that does not impose taxes on income or where the maximum income tax is lower than 20%

Taxation of Gains. Regarding this issue, for purposes of Brazilian taxation, two types of non-Brazilian residents should be considered: (1) non-Brazilian holders that are not resident or domiciled in tax haven jurisdictions, which are registered before the Central Bank and the CVM to invest in Brazil in accordance with Resolution 2,689 or are holders of American depositary shares; and (2) other non-Brazilian holders, which include any and all non-residents in Brazil who invest in the country through any other means and all type of investors that are located in a tax haven jurisdiction. The investors identified in item (1) are subject to a favorable tax treatment, as described below.

Gains realized outside Brazil by a non-Brazilian resident holder on the disposition of American depositary shares to another non-Brazilian resident holder are not subject to Brazilian tax.

The deposit of preferred class A shares or common shares in exchange for American depositary shares is not subject to Brazilian income tax if the preferred class A shares or common shares are registered under Resolution 2,689 and the respective holder is not located in a tax haven jurisdiction. If the preferred class A shares or common shares are not registered or if they are registered but the respective holder is located in a tax haven jurisdiction, the deposit of preferred class A shares or common shares in exchange for American depositary shares may be subject to Brazilian capital gains tax at the rate of 15%. The withdrawal of preferred class A shares or common shares in exchange for American depositary shares is not subject to Brazilian income tax. On receipt of the underlying preferred class A shares or common shares, a non-Brazilian resident holder, registered under Resolution 2,689 may register the U.S. dollar value of such shares with the Central Bank as described below under —*Registered Capital*.

Non-Brazilian holders are not subject to tax in Brazil on gains realized on sales of preferred class A shares or common shares that occur abroad to a non-Brazilian resident. Non-Brazilian resident holders are subject to income tax imposed at a rate of 15% on gains realized on sales or exchanges of preferred class A shares or common shares that occur in Brazil or with a resident of Brazil, other than Brazilian stock, future and commodities exchange. With reference to proceeds of a redemption or of a liquidating distribution with respect to the preferred class A shares or common shares, the difference between the amount received and the amount of foreign currency registered with the Central Bank, translated into *reais* at the commercial market rate on the date of the redemption or liquidation distribution, will be also subject to income tax at a rate of 15%, once such transactions are treated as a sale or exchange carried out outside of the Brazilian stock, future commodities exchange.

Gains realized arising from transactions on a Brazilian stock, future or commodities exchange, by an investor under Resolution 2,689 and not located in a tax haven jurisdiction are exempt from income tax. As of January 1, 2000, the preferential treatment under Resolution 2,689 is no longer applicable if the non-Brazilian holder of the American depositary shares or preferred class A shares or common shares is resident in a tax haven jurisdiction in accordance with Law 9,959 of January 27, 2000. As a consequence, gains realized on transactions performed by such holder on Brazilian stock, futures or commodities exchange are subject to income tax at a rate of 20%,.

Therefore, non-Brazilian resident holders are subject to income tax imposed at a rate of 20%, on gains realized on sales or exchanges in the spot market in Brazil of preferred class A shares or common shares that occur on a Brazilian stock exchange unless such sale is made by a non-Brazilian holder who is not resident in a tax haven jurisdiction and (1) such sale is made within five business days of the withdrawal of such common shares in exchange for American depositary shares and the proceeds thereof are remitted abroad within such five-day period, or (2) such sale is made under Resolution 2,689 by registered non-Brazilian holders who obtain registration with the Brazilian securities commission.

The gain realized as a result of a transaction on a Brazilian stock exchange is the difference between the amount in Brazilian currency realized on the sale or exchange and the acquisition cost, without any correction for inflation, of the shares sold. The gain realized as a result of a transaction that does not occur on a Brazilian stock exchange will be calculated based on the foreign currency amount registered with the Central Bank. It is possible that the current preferential treatment for holders of American depositary receipts and non-Brazilian holders of common shares under Resolution 2,689 will not continue in the future.

Any exercise of preemptive rights relating to the preferred class A shares or common shares will not be subject to Brazilian taxation. Any gain on the sale or assignment of preemptive rights relating to the preferred class A shares or common shares by the depositary that occurs abroad among non-residents will not be subject to Brazilian taxation. In case such sale or assignment is made to a Brazilian party, any gain on the transaction will be subject to Brazilian income taxation according to the same rules applicable to the sale or disposition of preferred class A shares or common shares, unless such sale or assignment is performed within Brazilian stock exchanges and by an investor under Resolution 2,689 who is not a resident in a tax haven jurisdiction, in which the gains are exempt from income tax.

Taxation of Foreign Exchange Transactions (IOF/Câmbio). Pursuant to Decree 2,219 of May 2, 1997, the conversion into Brazilian currency of proceeds received by a Brazilian entity from a foreign investment in the Brazilian securities market (including those in connection with an investment in preferred shares or the American depositary

shares and those under Resolution 2,689) and the conversion into foreign currency of proceeds received by a non-Brazilian resident holder are subject to a tax on exchange transactions known as IOF/Câmbio, which is currently zero for the transaction under analysis. However, according to Law 8,894/94, the IOF/Câmbio rate may be increased at any time to a maximum of 25% by a decision of the Minister of Finance, but only in relation to future exchange transactions.

Tax on Bonds and Securities Transactions (IOF/Títulos). Law 8,894/94, created the Tax on Bonds and Securities Transactions, the IOF/Títulos, which may be imposed on any transactions involving bonds and securities, even if these transactions are performed on Brazilian stock, futures or commodities exchanges. As a general rule, the rate of this tax is currently zero, although the executive branch may increase such rate up to 1.5% per day, but only with respect to future transactions.

Tax on Bank Accounts (CPMF). As a general rule, CPMF is imposed on any debit to bank accounts, at a current rate of 0.38%. Although CPMF is set to expire on June, 2002, the Brazilian government is discussing the possibility of extending this period or converting this tax into a permanent tax.

Other Brazilian Taxes. There are no Brazilian inheritance, gift or succession taxes applicable to the ownership, transfer or disposition of preferred class A shares or common shares or American depositary shares by a non-Brazilian holder, except for gift and inheritance taxes which are levied by some states of Brazil on gifts made or inheritances bestowed by individuals or entities not resident or domiciled in Brazil within such state to individuals or entities resident or domiciled within such state in Brazil. There are no Brazilian stamp, issue, registration, or similar taxes or duties payable by holders of preferred class A or common shares of American depositary shares.

Registered Capital. The amount of an investment in preferred class A shares or common shares held by a non-Brazilian resident holder who obtains registration under Resolution 2,689, or by the Depositary representing such holder, is eligible for registration with the Central Bank; such registration (the amount so registered is referred to as Registered Capital) allows the remittance outside Brazil of foreign currency, converted at the commercial market rate, acquired with the proceeds of distributions on, and amounts realized with respect to disposition of, such preferred class A shares or common shares.

The registered capital for each preferred class A share or common share purchased in the form of an American depositary shares, or purchased in Brazil, and deposited with the depositary in exchange for an American depositary share, will be equal to its purchase price (in U.S. dollars) to the purchaser.

The registered capital for a preferred class A share or common shares that is withdrawn upon surrender of an American depositary share will be the U.S. dollar equivalent of:

- (1) the average price of a preferred class A share or common shares on the Brazilian stock exchange on which the greatest number of such shares was sold on the day of withdrawal, or
- (2) if no preferred class A shares were sold on that day, the average price on the Brazilian stock exchange on which the greatest number of preferred class A shares or common shares were sold in the fifteen trading sessions immediately preceding such withdrawal.

The U.S. dollar value of the preferred class A shares or common shares is determined on the basis of the average commercial market rates quoted by the Central Bank on such date (or, if the average price of preferred class A shares or common shares is determined under clause (2) of the preceding sentence, the average of such average quoted rates on the same fifteen dates used to determine the average price of the preferred class A shares or common shares).

A non-Brazilian resident holder of preferred class A shares or common shares may experience delays in completing such registration which may delay remittances abroad. Such a delay may adversely affect the amount, in U.S. dollars, received by the non-Brazilian holder.

#### **U.S. Federal Income Tax Considerations**

This discussion only applies to U.S. holders, as defined below, who hold their preferred class A shares or common shares or American depositary shares as capital assets. This discussion does not describe all of the tax consequences that may be relevant in light of a holder's particular circumstances or to holders subject to special rules, such as:

- certain financial institutions,
- insurance companies,
- dealers or traders in securities or foreign currencies,
- persons holding preferred class A shares, common shares or American depositary shares as part of a hedge, straddle, conversion or other integrated transaction,
- holders whose functional currency is not the U.S. dollar,
- partnerships or other entities classified as partnerships for U.S. federal income tax purposes,
- persons subject to the alternative minimum tax, or
- persons owning, actually or constructively, 10% or more of our voting shares.

This discussion is based on the Internal Revenue Code of 1986, as amended to the date hereof, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury Regulations, changes to any of which may affect the tax consequences described herein. Holders should consult their tax advisors with regard to the application of the United States federal income tax laws to their particular situations as well as any tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

This discussion is also based, in part, on representations of the depositary and the assumption that each obligation in the deposit agreement and any related agreement will be performed in accordance with its terms.

As used herein, the term "United States holder" means a beneficial owner of preferred class A shares, common shares, or American depositary shares that is for U.S. federal income tax purposes:

- a citizen or resident alien individual of the United States,
- a corporation created or organized in or under the laws of the United States or of any political subdivision thereof, or
- an estate or trust the income of which is subject to United States federal income taxation regardless of its source.

The term United States holder also includes certain former citizens of the United States.

In general, for U.S. federal income tax purposes, holders of American depositary receipts evidencing American depositary shares will be treated as the beneficial owners of the preferred class A shares or common shares represented by those American depositary shares. Deposits and withdrawals of preferred class A shares or common shares by holders in exchange for American depositary shares will not result in the realization of gain or loss for U.S. federal income tax purposes.

Taxation of Dividends. Subject to the discussion under —Passive Foreign Investment Company Rules below, distributions paid on American depositary shares, preferred class A shares or common shares, including distributions paid in the form of payments of interest on capital for Brazilian tax purposes, out of our current or accumulated earnings and profits, as determined for U.S. federal tax purposes, before reduction for any Brazilian income tax withheld by us, will be taxable to you as foreign source dividend income and will not be eligible for the dividends-received deduction allowed to corporations.

You will be required to include dividends paid in *reais* in income in an amount equal to their U.S. dollar value calculated by reference to an exchange rate in effect on the date such items are received. If you hold American depositary shares, you will be considered to receive a dividend when the dividend is received by the depositary.

Subject to generally applicable limitations and restrictions, you will be entitled to a credit against your United States federal income tax liability, or a deduction in computing your U.S. federal taxable income, for Brazilian income taxes withheld by us. You must satisfy minimum holding period requirements to be eligible to claim a foreign tax credit for Brazilian taxes withheld on dividends. The limitation on foreign taxes eligible for credit is calculated separately for specific classes of income. For this purpose dividends paid by us on our shares will generally constitute "passive income." The U.S. Treasury has expressed concerns that parties to whom depositary receipts such as the American depositary receipts are released may be taking actions that are inconsistent with the claiming of foreign tax credits by United States holders of such depositary receipts. Accordingly, the creditability of Brazilian taxes described above could be affected by actions that may be taken by the U.S. Treasury.

Taxation of Capital Gains. Subject to the discussion under —Passive Foreign Investment Company Rules below, upon a sale or exchange of preferred class A shares, common shares or American depositary shares, you will recognize a capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between the amount realized on the sale or exchange and your adjusted tax basis in the preferred class A shares, common shares or American depositary shares. This gain or loss will be long-term capital gain or loss if your holding period in the American depositary shares or ordinary shares exceeds one year. Any gain or loss will be U.S. source gain or loss for U.S. foreign tax credit purposes. Consequently, if a Brazilian withholding tax is imposed on the sale or disposition of American depositary shares or common shares, and you do not receive significant foreign source income from other sources you may not be able to derive effective U.S. foreign tax credit benefits in respect of such Brazilian withholding tax. You should consult your own tax advisor regarding the application of the foreign tax credit rules to your investment in, and disposition of, preferred shares or common shares

If a Brazilian tax is withheld on the sale or disposition of shares, the amount realized by a U.S. holder will include the gross amount of the proceeds of such sale or disposition before deduction of the Brazilian tax. See —*Brazilian Tax Considerations*—*Taxation of Gains*.

#### Passive Foreign Investment Company Rules

We believe that we will not be considered a passive foreign investment company for U.S. federal income tax purposes. Passive foreign investment company status depends on a foreign company not earning more than a permitted amount of gross income that is considered "passive income" and not holding more than a permitted percentage of assets, determined by value, that produce or are held to produce passive income. For these purposes, a company is treated as earning and holding its pro rata share of the income and assets of any corporation in which it owns, directly or indirectly, 25% of the stock, by value. Since this test depends on the composition of a company's income and assets, and market value of those assets, from time to time, and it is unclear whether certain of our income and assets would be associated with "commodities transactions" that would not be considered "qualified active sales," there can be no assurance that we will not be considered a passive foreign investment company for any taxable year. If we were treated as a passive foreign investment company for any taxable year during which a U.S. Holder held an American depositary share, preferred Class A share or common share, certain adverse consequences could apply to the U.S. holder.

If we are treated as a passive foreign investment company for any taxable year and a U.S. holder does not make the mark to market election described below, gain recognized by such U.S. holder on a sale or other disposition of the American depositary shares of preferred Class A shares or common shares would be allocated ratably over the U.S. holder's holding period for the American depositary shares, preferred Class A shares or common shares. The amounts allocated to the taxable year of the sale or other exchange and to any year before we became a passive foreign investment company would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, and an interest charge would be imposed on the amount allocated to such taxable year. Further, any distribution in respect of American depositary shares, preferred Class A shares or common shares in excess of 125 percent of the average of the annual distributions on American depositary shared or common shares received by the U.S. holder during the

preceding three years or the U.S. holder's holding period, whichever is shorter, would be subject to taxation and an interest charge in the manner described above.

If we are treated as a passive foreign investment company and the preferred Class A shares or common shares or American depositary shares are regularly traded on a "qualified exchange," a U.S. holder may make a mark-to-market election. A "qualified exchange' includes a foreign exchange that is regulated by a governmental authority in which the exchange is located and with respect to which certain other requirements are met. The IRS has not yet identified specific foreign exchanges that are "qualified" for this purpose. The New York Stock Exchange, on which the American depositary shares are expected to be traded, is a qualified exchange for U.S. federal income tax purposes.

A U.S. holder that makes the election generally will include each year as ordinary income the excess, if any, of the fair market value of the American depositary shares, preferred Class A shares or common shares at the end of the taxable year over their adjusted basis, and will be permitted an ordinary loss in respect of the excess, if any, of the adjusted basis of the American depositary shares, preferred Class A shares or common shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of previously included income as a result of the mark-to-market election). The basis of a U.S. holder that makes the election in the American depositary shares, preferred Class A shares or common shares will be adjusted to reflect any such income or loss amounts. Any gain recognized on the sale or other disposition of American depositary shares, preferred Class A shares or common shares will be treated as ordinary income.

If a U.S. holder owns shares or American depositary shares, preferred Class A shares or common shares during a year in which we are considered a passive foreign investment company, the U.S. holder must file Internal Revenue Service Form 8621.

Prospective U.S. holders are urged to consult their tax advisers concerning the consequences to them if we were considered to be a passive foreign investment company.

Information Reporting and Backup Withholding

Information returns may be filed with the Internal Revenue Service in connection with distributions on the preferred class A shares or American depositary shares and the proceeds from their sale or other disposition. You may be subject to United States backup withholding tax on these payments if you fail to provide your taxpayer identification number or comply with certain certification procedures or otherwise establish an exemption from backup withholding. The amount of any backup withholding from a payment to you will be allowed as a credit against your U.S. federal income tax liability and may entitle you to a refund, provided that the required information is furnished to the Internal Revenue Service.

### 10.F. Dividends and Paying Agents

For detailed information regarding dividend entitlement and distribution, see *Item 8.A.8. Dividend Distributions* and Item *10.B. Memorandum and Articles of Association—Mandatory Dividend,—Dividend Preference of Preferred Shares* and —*Payments on Shareholders' Equity.* 

The depositary is JPMorgan Chase Bank, which has its principal office located in New York, New York. JPMorgan Chase Bank is a commercial bank offering a wide range of banking and trust services to its customers in the New York metropolitan area, throughout the United States and around the world.

### 10.G. Statement by Experts

Our consolidated financial statements as of December 31, 2001 and 2000 and for each of the three years in the period ended December 31, 2001 have been included in this annual report in reliance upon the report of PricewaterhouseCoopers Auditores Independentes, independent accountants, given on the authority of said firm as experts in auditing and accounting. The financial statements of Vale Overseas as of December 31, 2001 have been included in this annual report in reliance upon the report of PricewaterhousCoopers Auditores Independentes, independent accountants, given on the authority of said firm as experts in auditing and accounting. The financial statements of certain of our subsidiaries and affiliates, not separately included in this annual report, have been audited

by various independent accountants other than PricewaterhouseCoopers Auditores Independentes. The companies and periods covered by these audits are indicated in the individual accountants' reports appearing in this annual report. These financial statements, to the extent they have been included in our consolidated financial statements, have been included in reliance on the reports of the various independent accountants given on the authority of said firms as experts in auditing and accounting.

We have engaged AMEC Engineering and Construction Services, or AMEC (formerly MRDI), experts in geology, mining and ore reserve determination, to perform an audit of our estimates of proven and probable reserves and mine life at December 31, 2001. The estimates of proven and probable reserves and mine life as presented herein have been audited and verified by AMEC, which has indicated that our proven and probable reserves have been estimated in accordance with good engineering practices, using current reasonable cost estimates. Reserves classified as "other mineral deposits" have not been audited by AMEC.

# 10.H. Documents on Display

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith file reports and other information with the Commission. Reports and other information filed by us with the Commission may be inspected and copied at the public reference facilities maintained by the Commission at Room 1024, 450 Fifth Street, N.W., Washington, D.C. 20549, and at the Commission's Regional Offices at 233 Broadway, New York, New York 10279 and Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511. You may obtain copies of these materials by mail from the Public Reference Section of the Commission, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. You may inspect these reports and other information at the offices of the New York Stock Exchange, 11 Wall Street, New York, New York 10005, on which our American depositary shares are listed.

We file financial statements and other periodic reports with the CVM.

As a foreign private issuer, we are not subject to the proxy rules of Section 14 of the Securities Exchange Act of 1934 or the insider short-swing profit reporting requirements of Section 16 of that Act.

# 10.I. Subsidiary Information

Not applicable.

# Item 11. Quantitative and Qualitative Disclosures About Market Risk

The principal market risks we face are interest rate risk, exchange rate risk and commodity price risk. We manage some of these risks through the use of derivative instruments. Our policy has been to settle all contracts in cash without physical delivery of product.

Our risk management activities follow policies and guidelines that our board of directors reviewed and approved. These policies and guidelines generally prohibit speculative trading and short selling and require diversification of transactions and counter-parties. We monitor and evaluate our overall position daily in order to evaluate financial results and impact on our cash flow. We also periodically review the credit limits and creditworthiness of our hedging counter-parties. We report the results of our hedging activities to senior management on a monthly basis.

### **Interest Rate and Exchange Rate Risk**

The table below sets forth our floating and fixed rate long-term debt, categorized by local and foreign currency, and as a percentage of our total long-term debt portfolio at the dates indicated, including loans from both related and unrelated parties, as reflected in our consolidated financial statements.

	At December 31,								
_	2000		20	01					
	(in mi	llions of US\$,	except percentag	ges)					
Floating rate debt  *Real-denominated	US\$167	8.3%	US\$116	5.5%					

_	At December 31,								
_	200	00	2	001					
	(in millions of US\$, except percentages)								
Foreign currency denominated	1,070	52.9	1.234	58.7					
Fixed rate debt									
Real-denominated	_	_	4	0.2					
Foreign currency denominated	783	38.8	748	35.6					
Total	US\$2,020	100%	US\$2.102	100%					

The table below provides information about our debt obligations as of December 31, 2001, which are sensitive to changes in interest rates and exchange rates. The table presents the principal cash flows and related weighted-average interest rates of these obligations by expected maturity date. Weighted-average variable interest rates are based on the applicable reference rate (LIBOR or TJLP) at December 31, 2001. The debt obligations' actual cash flows are denominated in U.S. dollars or Brazilian *reais*, as indicated.

Fair

								Value Cash Flow at December 31,	Fair Value Accounting December 31, 2001
	Rate	2003	2004	2005	2006	to 2012	Total	2001	2001
U.S. dollar-denominated:									
Fixed rate									
Bonds	9.375%	\$209	\$0	\$0	\$0	\$0	\$209	\$209	\$175
Bonds 10	0.00%	0	317	0	0	0	317	317	256
Loan up	to 7%	13	21	23	25	106	188	188	211
Loan ove	er 7%	16	16	36	12	36	116	116	106
	_	238	354	59	37	142	830	830	748
Floating rate									
Loan up	to 7%	325	312	141	90	124	992	992	1,135
Loan ove	er 7%	73	6	5	5	0	89	89	99
		398	318	146	95	124	1,081	1,081	1,234
Subtotal	<del>-</del>	\$636	\$672	\$205	\$132	\$266	\$1,911	\$1,911	\$1,982
Real-denominated:	_				-	-	-	-	
Fixed rate									
Loan up to 7%		0	0	0	0	3	3	3	3
Loan over 7%		0	1	0	0	0	1	1	1
	_	0	1	0	0	3	4	4	4
Floating rate									
Loan up	to 7%	12	12	4	0	0	28	28	39
Loan ove	er 7%	32	4	4	2	3	45	45	77
	_	\$44	\$16	\$8	\$2	\$3	\$73	\$73	\$116
Subtotal		\$44	\$17	\$8	\$2	\$6	\$77	\$77	\$120
Total	_	\$680	\$689	\$213	\$134	\$272	\$1,988	\$1,988	\$2,102
	_	· <del></del> -						·	

### Interest Rate Risk

We are exposed to interest rate risk in our floating-rate debt. Our long-term floating-rate debt consists principally of U.S. dollar denominated notes and borrowings which we have incurred primarily in connection with capital expenditures, and investments in and loans to joint ventures and affiliated companies. Our short-term floating-rate debt consists principally of U.S. dollar denominated trade financing. In general, our foreign currency floating rate debt is

principally subject to changes in the London Interbank Offered Rate, or LIBOR. Our floating rate debt denominated in *reais* is principally subject to changes in the TJLP, as fixed by the Central Bank.

Our interest rate derivatives portfolio generally consists of option trades which aim to cap our exposure to interest rate fluctuations. A cap is the maximum rate we will be required to pay on the notional amount of the debt. Conversely, a floor is the minimum rate we will be required to pay on the notional amount of the debt. Certain caps are subject to knock-out provisions which, if triggered, eliminate the protection provided by the cap.

The table below sets forth certain information with respect to our interest rate derivatives portfolio at December 31, 2000 and 2001:

_	At	December 31,	2000	At						
Туре	Notional Value Rate Range		Unrealized gain (loss)	Notional Value Rate Ran		Unrealized gain (loss)	Final maturity			
			(In millions of US\$, except rate ranges)							
Cap	\$1,200	5-8%	\$3	\$1,375	5.8%	\$2	12/2004			
Floor	850	5-6.5	(7)	1,000	5-6.5	(28)	12/2004			
Swap	125	5.5-7.5	(4)	125	5.5-7.5	(10)	10/2007			
_			\$(8)			\$(36)				

The unrealized loss in the amount of US\$36 million represents the amount payable if all transactions had been settled on December 31, 2001.

### Exchange Rate Risk

Our long-term debt is primarily denominated in foreign currencies, principally the U.S. dollar. Because our revenues are primarily dollar-denominated, we do not believe that the high incidence of dollar-denominated debt in our long-term debt portfolio exposes us to an undue amount of exchange rate risk.

However, a portion of our indebtedness is also denominated in euros and in Japanese yen, and we use derivatives instruments to protect ourselves against specific risks associated with exchange rate movements in these foreign currencies.

The table below sets forth certain information with respect to our exchange rate derivatives portfolio at December 31, 2000 and 2001. These derivatives are structured forwards that we have purchased, which will require us to purchase foreign currencies as specified below:

	At December 31, 2000										
	Notional Value		Price Range		Unrealized gain (loss)		otional Value	Price Range	Unrealized gain (loss)		Final maturity
			(I	n mi	llions of	US\$, except price ranges)					
Yen purchased	\$	15	¥70-110 per US\$	\$	(2)	\$	5	¥70-110 per US\$	\$	(2)	4/2005
Euro purchased		12	US\$1.10-1.30 per US\$		(2)	=	8	US\$ 1.10-1.30 per US\$		(2)	4/2005
				\$	(4)	=			\$	(4)	

The unrealized losses in the amounts of US\$4 million and US\$4 million represent the amounts payable if all transactions had been settled on December 31, 2000 and December 31, 2001, respectively.

### **Commodity Price Risk**

We are also exposed to various market risks relating to the volatility of world market prices for:

• iron ore, which represented 62.9% of our 2001 consolidated revenues,

- aluminum, which represented 6.9% of our 2001 consolidated revenues, and
- gold, which represented 3.4% of our 2001 consolidated revenues.

We do not enter into derivatives transactions to hedge our iron ore exposure. See *Item 5.D. Trend Information*—Prices.

To manage the risk associated with fluctuations in aluminum prices, our affiliates Albras and Alunorte engage in hedging transactions involving put and call options, as well as forward contracts. These derivative instruments allow Albras and Alunorte to establish minimum average profits for their future aluminum production in excess of their expected production costs and therefore ensure stable cash generation. However, they also have the effect of reducing potential gains from price increases in the spot market for aluminum.

The table below sets forth certain information with respect to Albras's derivatives portfolio at December 31, 2001 and 2000. We have a 51% voting capital interest and a 51% total capital interest in Albras.

	At	t December 31, 20	000	At D	ecember 31, 20	001	
Туре	Notional Value	Price Range	Unrealized gain (loss)	Notional Value	Price Range	Unrealized gain (loss)	Final maturity
	(Tons of aluminum)	(US\$ per ton)	(In millions of US\$)	(Tons of aluminum)	(US\$ per ton)	(In millions of US\$)	
Puts purchased	42,000	1,400-1,000	\$ 2.0	80,000	1,400-1600	\$ 9.5	12/2001
Forwards sold	67,189	1,500-1,700	(1.4)	57,000	1,400-1600	7.7	12/2006
Calls sold	123,000	1,500-1,700	(5.5)	56,000	1,600-1800	(0.9)	03/2002
Other instruments	_	_		132,000	_	(2.7)	
			\$ (4.9)			\$ 13.6	

The table below sets forth certain information with respect to Alunorte's derivatives portfolio of December 31, 2001 and 2000. We have a 50.3% voting capital interest and a 49.3% total capital interest in Alunorte.

	Atl	December 31, 2000		At December 31, 2001			
Туре	Notional Value	Price Range	Unrealized gain (loss)	Notional Value	Price Range	Unrealized gain (loss)	Final maturity
	(Tons of aluminum)	(US\$ per ton)	(In millions of US\$)	(Tons of aluminum)	(US\$ per ton)	(In millions of US\$)	
Puts purchased	96,000	1,400-1,600	\$ 3.8	15,000	1,400-1,600	\$ 2.4	12/2002
Forwards sold	51,000	1,600-1,800	(0.3)	26,000	1,400-1,600	4.4	12/2002
Calls sold	157,500	1,500-1,700	(5.1)	23,000	1,600-1,800	_	12/2002
Other instruments	36,000		0.2	74,000		(1.6)	10/2003
			\$ (1.4)	:		\$ 5.2	:

To manage the risk associated with fluctuations in gold prices, we enter into derivative instruments which allow us to establish a minimum profit level for future gold production. However, they may also have the effect of eliminating potential gains on certain price increases in the spot market for gold.

The table below sets forth certain information with respect to our gold derivatives portfolio at December 31, 2000.

		At Decembe	er 31, 2000		
	Quantity	Price Range	Unrealized gain (loss)	Final maturity	
	(oz.)	(US\$ per oz.)	(in millions of US\$)		
Puts purchased	479,500	300-375	US\$ 13	12/2005	
Calls sold	999,800	308-375	(5)	12/2005	
Other instruments	30,000		1	11/2005	
			US\$ 9		

The unrealized gain in the amount of US\$8 million represents the amount receivable if all transactions had been settled on December 31, 2001.

The table below sets forth certain information with respect to our gold derivatives portfolio at December 31, 2001.

		At Decem	ber 31	, 2001	
Туре	Quantity	Price Range	Unrealized gain (loss)		Final maturity
	(oz.)	(US\$ per oz.)	(in	millions of US\$)	
Puts purchased	422,000	270-340	US	\$11	12/2005
Calls sold	718,000	308-366		(3)	12/2005
Other Instruments	25,000			_	11/2005
			US	\$8	

#### Item 12. Description of Securities Other than Equity Securities

Not applicable.

#### **PART II**

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

Item 15. [Reserved]

Item 16. [Reserved]

Item 17. Financial Statements

The Registrant has responded to *Item 18* in lieu of responding to this Item.

#### PART III

## Item 18. Financial Statements

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## Item 19. Exhibits

We file the following documents as part of this annual report:

Exhibit Number	Instrument corresponding to Articles of Incorporation and By-laws, as revised on May 20, 2002 (English translation).
8	List of Subsidiaries.
10.1	Consent of PricewaterhouseCoopers Auditores Independentes for the three years ended December 31, 2001, 2000 and 1999 (CVRD).
10.2	Consent of PricewaterhouseCoopers Auditores Independentes for the year ended December 31, 2001 (Vale Overseas)
10.3	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and

	1999 (Albras).
10.4	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Alunorte).
10.5	Consents of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Aluvale).
10.6	Consent of KPMG Auditores Independentes for the two years ended December 31, 2000 and 1999 (Bahia Sul).
10.7	Consent of KPMG LLP for the three years ended December 31, 2001, 2000 and 1999 (CSI).
10.8	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Cenibra).
10.9	Consents of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Docenave).
10.10	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Docepar).
10.11	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000 (Kobrasco).
10.12	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Nibrasco).
10.13	Consent of KPMG Auditores Independentes for the three years ended December 31, 2001, 2000, and 1999 (Valesul).
10.14	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (CSN).
10.15	Consents of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999. (Terminal Vila Velha S.A.).
10.16	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000. (Nova Era Silicon S.A.).
10.17	Consent of Trevisan for the year ended December 31, 1999. (Nova Era Silicon S.A.).
10.18	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000. (Celmar S.AIndústria de Celulose e Papel).
10.19	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000. (SIBRA Eletrosiderúrgica Brasileira S.A.).
10.20	Consent of AMEC Engineering and Construction Services.
10.21	Letter from CVRD regarding auditing by Arthur Andersen

#### **SIGNATURES**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant certifies that it meets all the requirements for filing this Annual Report on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

#### COMPANHIA VALE DO RIO DOCE

By: /s/ Gabriel Stoliar

Name: Gabriel Stoliar
Title: Director

By: /s/ Antônio Miguel Marques

Name: Antônio Miguel Marques

Title: Director

#### VALE OVERSEAS LIMITED

By: /s/ Gabriel Stoliar

Name: Gabriel Stoliar Title: Director

By: /s/ Francisco Rohan de Lima

Name: Francisco Rohan de Lima

Title: Director

Date: June 28, 2002

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Consolidated Statements of Changes in Stockholders' Equity for the three years ended December 31, 2001, 2000 and 1999	F-7
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#### REPORT OF INDEPENDENT ACCOUNTANTS

#### To the Board of Directors and Stockholders of Companhia Vale do Rio Doce

In our opinion, based upon our audits and the reports of other auditors, the accompanying consolidated balance sheets and the related consolidated statements of income, of cash flows and of changes in stockholders' equity, present fairly, in all material respects, the financial position of Companhia Vale do Rio Doce and its subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We did not audit the financial statements of certain affiliates, the investments in which total US\$441 million and US\$1,188 million at December 31, 2001 and 2000, respectively, and equity in earnings of US\$53 million, US\$213 million and US\$42 million for 2001, 2000 and 1999, respectively. Also, we did not audit the financial statements of the majority-owned shipping and ferrous alloys subsidiaries as at and for the years ended December 31, 2001, 2000 and 1999, which statements reflect total assets of US\$500 million and US\$584 million at December 31, 2001 and 2000, respectively, and total revenues of US\$407 million, US\$480 million and US\$177 million for 2001, 2000 and 1999, respectively. The financial statements of these affiliates and subsidiaries were audited by other auditors whose reports thereon have been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts for these affiliates and subsidiaries, is based solely on the reports of the other auditors. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits and the reports of other auditors provide a reasonable basis for the opinion expressed above.

PricewaterhouseCoopers Auditores Independentes

Rio de Janeiro, Brazil March 28, 2002

## **Consolidated Balance Sheets**

## **Expressed in millions of United States dollars**

Zerott in come tax sets           Current assets           Cash and cash equivalents         1,117         1,211           Accounts receivable         Related parties         106         125           Unrelated parties         160         121           Loans and advances to related parties         160         121           Inventories         323         306           Deferred income tax         265         89           Others         224         285           Property, plant and equipment, net         3,813         3,955           Investments in affiliated companies and joint ventures and other investments         1,227         1,816           Provision for losses on equity investments         540         175           Officer assets         255         704           Clonaris and advances         555         704           Unrelated parties         555         704           Unrelated parties         255         704           Unrecognized pension obligation         14         125           Prepaid pension cost         227         255           Unifected gain on derivative instruments         235         173           Unrealized gain on derivative instruments <th><u> </u></th> <th>As of Do</th> <th>ecember 31</th>	<u> </u>	As of Do	ecember 31
Current assets         Cash and cash equivalents	<u> </u>	2001	2000
Cash and cash equivalents.       1,117       1,211         Accounts receivable       106       125         Related parties.       443       365         Loans and advances to related parties.       160       121         Inventories.       323       306         Deferred income tax       265       89         Others.       224       285         2,638       2,502         Property, plant and equipment, net.       3,813       3,955         Investments in affiliated companies and joint ventures and other investments.       1,227       1,816         Provision for losses on equity investments.       (9)       (21)         Other assets       09       (21)         Other assets       540       175         Loans and advances       8elated parties.       555       704         Unrelated parties.       555       704         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments       7       -         Others.       76       59	Assets		
Accounts receivable       106       125         Unrelated parties	Current assets		
Related parties.       106       125         Unrelated parties.       443       365         Loans and advances to related parties.       160       121         Inventories.       323       306         Deferred income tax       265       89         Others.       224       285         Property, plant and equipment, net.       3,813       3,955         Investments in affiliated companies and joint ventures and other investments.       1,227       1,816         Provision for losses on equity investments.       (9)       (21)         Other assets       540       175         Loans and advances       540       175         Related parties.       555       704         Unrelated parties.       100       52         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax.       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments       7       -         Others.       76       59	Cash and cash equivalents	1,117	1,211
Unrelated parties       443       365         Loans and advances to related parties       160       121         Inventories       323       306         Deferred income tax       265       89         Others       224       285         Property, plant and equipment, net       3,813       3,955         Investments in affiliated companies and joint ventures and other investments       1,227       1,816         Provision for losses on equity investments       (9)       (21)         Other assets       Goodwill on acquisition of consolidated subsidiaries       540       175         Loans and advances       555       704         Unrelated parties       555       704         Unrelated parties       100       52         Unrecognized pension obligation       14       125         Prepaid pension cost       99       -         Deferred income tax       227       255         Judicial deposits       235       173         Unrealized gain on derivative instruments       7       -         Others       76       59	Accounts receivable		
Loans and advances to related parties.       160       121         Inventories.       323       306         Deferred income tax       265       89         Others.       224       285         2,638       2,502         Property, plant and equipment, net.       3,813       3,955         Investments in affiliated companies and joint ventures and other investments.       1,227       1,816         Provision for losses on equity investments.       (9)       (21)         Other assets       540       175         Loans and advances       540       175         Related parties.       555       704         Unrelated parties.       100       52         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments.       7       -         Others.       76       59          1,853       1,543	Related parties.	106	125
Inventories	Unrelated parties	443	365
Deferred income tax         265         89           Others         224         285           2,638         2,502           Property, plant and equipment, net         3,813         3,955           Investments in affiliated companies and joint ventures and other investments         1,227         1,816           Provision for losses on equity investments         (9)         (21)           Other assets         540         175           Loans and advances         555         704           Unrelated parties         555         704           Unrelated parties         100         52           Unrecognized pension obligation         14         125           Prepaid pension cost         99         -           Deferred income tax         227         255           Judicial deposits         235         173           Unrealized gain on derivative instruments         7         -           Others         76         59	Loans and advances to related parties	160	121
Others         224         285           2,638         2,502           Property, plant and equipment, net         3,813         3,955           Investments in affiliated companies and joint ventures and other investments         1,227         1,816           Provision for losses on equity investments         (9)         (21)           Other assets         Goodwill on acquisition of consolidated subsidiaries         540         175           Loans and advances         555         704           Unrelated parties         555         704           Unrelated parties         100         52           Unrecognized pension obligation         14         125           Prepaid pension cost         99         -           Deferred income tax         227         255           Judicial deposits         235         173           Unrealized gain on derivative instruments         7         -           Others         76         59           1,853         1,543	Inventories	323	306
Property, plant and equipment, net	Deferred income tax	265	89
Property, plant and equipment, net	Others	224	285
Investments in affiliated companies and joint ventures and other investments.       1,227       1,816         Provision for losses on equity investments.       (9)       (21)         Other assets       540       175         Loans and advances       555       704         Unrelated parties.       555       704         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax.       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments.       7       -         Others.       76       59         1,853       1,543		2,638	2,502
Investments in affiliated companies and joint ventures and other investments.       1,227       1,816         Provision for losses on equity investments.       (9)       (21)         Other assets       540       175         Loans and advances       555       704         Unrelated parties.       555       704         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax.       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments.       7       -         Others.       76       59         1,853       1,543			
joint ventures and other investments.       1,227       1,816         Provision for losses on equity investments.       (9)       (21)         Other assets       340       175         Goodwill on acquisition of consolidated subsidiaries       540       175         Loans and advances       555       704         Unrelated parties.       100       52         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax.       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments.       7       -         Others.       76       59         1,853       1,543	Property, plant and equipment, net	3,813	3,955
Provision for losses on equity investments.       (9)       (21)         Other assets       Goodwill on acquisition of consolidated subsidiaries       540       175         Loans and advances       Felated parties.       555       704         Unrelated parties.       100       52         Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax.       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments.       7       -         Others.       76       59         1,853       1,543	Investments in affiliated companies and		
Other assets       540       175         Loans and advances       555       704         Related parties		*	,
Goodwill on acquisition of consolidated subsidiaries       540       175         Loans and advances       555       704         Related parties       100       52         Unrelated parties       14       125         Prepaid pension obligation       99       -         Deferred income tax       227       255         Judicial deposits       235       173         Unrealized gain on derivative instruments       7       -         Others       76       59         1,853       1,543	Provision for losses on equity investments	(9)	(21)
Loans and advances       555       704         Related parties			
Related parties	•	540	175
Unrelated parties		555	704
Unrecognized pension obligation.       14       125         Prepaid pension cost.       99       -         Deferred income tax.       227       255         Judicial deposits.       235       173         Unrealized gain on derivative instruments.       7       -         Others.       76       59         1,853       1,543	•		
Prepaid pension cost	-		
Deferred income tax	• •		125
Judicial deposits	• •		-
Unrealized gain on derivative instruments			
Others	Judicial deposits	235	173
1,853 1,543	Unrealized gain on derivative instruments	7	-
	Others	76	59
TOTAL	<u>-</u>	1,853	1,543
	TOTAL	9,522	9,795

## **Consolidated Balance Sheets**

## **Expressed in millions of United States dollars**

(Continued)

	As of D	ecember 31
	2001	2000
Liabilities and stockholders' equity		
Current liabilities		
Suppliers	296	321
Payroll and related charges	85	51
Interest attributed to stockholders	340	657
Current portion of long-term debt		
Related parties	22	30
Unrelated parties	274	250
Short-term debt	589	465
Loans from related parties	168	152
Others	147	210
	1,921	2,136
Long-term liabilities		
Employees postretirement benefits	187	591
Long-term debt		
Related parties	156	128
Unrelated parties	2,014	1,892
Loans from related parties	21	21
Provisions for contingencies (Note 15)	452	338
Unrealized loss on derivative instruments	40	-
Others	86	111
	2,956	3,081
Minority interests	5	9
Stockholders' equity		
Preferred class A stock - 600,000,000		
no-par-value shares authorized and 138,575,913 issued	820	709
Common stock - 300,000,000 no-par-value	020	707
shares authorized and 249,983,143 issued	1,479	1.279
Treasury stock - 91 ( 2000 - 3,659,311 ) preferred and 4,715,170 common shares	(88)	(61)
Additional paid-in capital	498	498
Other cumulative comprehensive income	(3,465)	(3,040)
Appropriated retained earnings	3,212	3,537
Unappropriated retained earnings	2,184	1,647
TOTAL	4,640	4,569
TOTAL	9,522	9,795

See notes to consolidated financial information.

## **Consolidated Statements of Income**

# **Expressed in millions of United States dollars** (except number of shares and per-share amounts)

	Year ended December 31		
	2001	2000	1999
Operating revenues, net of discounts, returns and allowances Sales of ores and metals			
Iron ore and pellets	2,600	2,177	1,694
Gold	139	156	155
Others	426	412	175
·	3,165	2,745	2,024
Revenues from transportation services	608	760	642
Aluminum products	284	362	363
Other products and services	75	202	128
•	4,132	4,069	3,157
Value-added tax	(142)	(134)	(81)
Net operating revenues	3,990	3,935	3,076
·	3,770	3,733	3,070
Operating costs and expenses  Cost of ores and metals sold	(1,605)	(1,423)	(996)
Cost of transportation services	(378)	(481)	(368)
•	` ′	` ′	` '
Cost of aluminum products	(269)	(334)	(323)
Others	(75)	(191)	(119)
	(2,327)	(2,429)	(1,806)
Selling, general and administrative expenses	(241)	(225)	(138)
Research and development	(43)	(48)	(27)
Employee profit sharing plan	(38)	(29)	(24)
Others	(412)	(278)	(165)
	(3,061)	(3,009)	(2,160)
Operating income	929	926	916
Non-operating income (expenses)			
Financial income	135	208	200
Financial expenses	(335)	(315)	(233)
Foreign exchange and monetary losses, net	(393)	(142)	(213)
Gain on sale of investments	784	54	-
	191	(195)	(246)
Income before income taxes, equity results and minority interests	1,120	731	670
Income taxes			
Current	46	(10)	-
Deferred	172	42	(33)
	218	32	(33)
Equity in results of affiliates and joint ventures	(49)	260	41
Change in provision for losses on equity investments	(4)	62	(268)
Minority interests.	2	1	2
Net income	1,287	1,086	412
Basic earnings per Common and Preferred Class A Share	3.34	2.82	1.07
Weighted average number of shares outstanding (thousands of shares)			
Common shares	249,864	249,983	249,983
Preferred Class A shares	135,042	134,917	134,917

## **Consolidated Statements of Cash Flows**

## **Expressed in millions of United States dollars** (Unaudited)

_	Year ended Decemb		ember 31
	2001	2000	1999
Cash flows from operating activities:			
Net income	1,287	1,086	412
Depreciation, depletion and amortization	212	195	163
Equity in results of affiliates and joint ventures, net of dividends received	181	(127)	23
Change in provision for losses on equity investments.	4	(62)	268
Deferred income taxes	(172)	(42)	33
Provisions for contingencies	79	101	57
Loss on disposals of property, plant and equipment	79	47	23
Gain on sale of investments	(784)	(54)	-
Pension plan	32	105	55
Foreign exchange and monetary losses	460	208	399
Net unrealized derivative losses	38	-	-
Others	129	54	61
Decrease (increase) in assets:	(40)	(62)	(125)
Accounts receivable	(49)	(63)	(135)
Inventories	(40)	(50)	(6)
Others  Increase (decrease) in liabilities:	17	(103)	(25)
Suppliers	21	84	49
Payroll and related charges.	42	(1)	2
Others	(18)	46	(43)
<del>-</del>	1,518	1,424	1,336
Net cash provided by operating activities.	1,516	1,424	1,330
Cash flows from investing activities:			
Loans and advances receivable Related parties			
•	(75)	(160)	(202)
Additions	(75) 79	(168) 32	(202) 42
RepaymentsOthers	7	8	5
Guarantees and deposits.	(85)	(98)	(4)
Additions to investments.	(338)	(538)	(49)
Additions to property, plant and equipment.	(595)	(447)	(265)
Proceeds from disposals of property, plant and equipment	3	1	(203)
	989	44	1
Proceeds from disposal of investments			-
Net cash used to acquire subsidiaries	(516)	(323)	-
Others			3
Net cash used in investing activities	(531)	(1,489)	(469)
Cash flows from financing activities:			
Short-term debt, net issuances	(28)	(278)	(110)
Loans			
Related parties			
Additions	145	8	223
Repayments	(44)	(42)	(42)
Perpetual notes	-	120	-
Long-term debt		62	<b>CO</b>
Related parties	66	62 750	60
OthersRepayments of long-term debt	317	750	175
Related parties	(40)	(25)	(48)
Others	(310)	(419)	(299)
Interest attributed to stockholders.	(1,066)	(246)	(452)
			(132)
Treasury stock	(27)		
Net cash used in financing activities.	(987)	(70)	(493)
Increase (decrease) in cash and cash equivalents	-	(135)	374
Effect of exchange rate changes on cash and cash equivalents	(94) 1,211	(107) 1,453	(110) 1,189
<u> </u>			
Cash and cash equivalents, end of period.	1,117	1,211	1,453
Cash paid during the period for:	(45)	(40)	(55)
Interest on short-term debt	(45)	(48)	(55)
Interest on long-term debt, net of interest capitalized of \$11 in 2001, \$12 in 2000 and \$12 in 1999	(153)	(128)	(107)
Income tax	(46)	(6)	-
Special pension plan contribution in shares of CSN	249		
Exchange of loans receivable for investments	35	7	241
Transfer of credits from related parties ar fair value	-	-	126
			120

 $See\ notes\ to\ consolidated\ financial\ information.$ 

Consolidated Statements of Changes in Stockholders' Equity Expressed in millions of United States dollars (except number of shares and per-share amounts)

		Y	Year ended De	cember 31
_	Shares	2001	2000	1999
Preferred class A stock (including one special share)				
Balance January 1, 2001, 2000 and 1999	138,575,913	709	709	642
Transfer from appropriated retained earnings	<u> </u>	111		67
Balance December 31, 2001, 2000 and 1999	138,575,913	820	709	709
Common stock				
Balance January 1, 2001, 2000 and 1999	249,983,143	1,279	1,279	1,159
Transfer from appropriated retained earnings		200		120
Balance December 31, 2001, 2000 and 1999	249,983,143	1,479	1,279	1,279
Treasury stock				
Balance January 1	(3,666,611)	(61)	(61)	(61)
Acquisitions in 2001	(1,048,650)	(27)	-	
Balance December 31	(4,715,261)	(88)	(61)	(61)
Additional paid-in capital	<u> </u>			(-)
Balance January 1 and December 31		498	498	498
Other cumulative comprehensive income	-	420	420	470
Amounts not recognized as net periodic pension cost				
Balance January 1		(100)		(153)
Excess of additional minimum liability		151	(151)	229
Tax effect on above		(51)	51	(76)
Balance December 31	_	(31)	(100)	(70)
Cumulative translation adjustments	-		(100)	
Balance January 1		(2,972)	(2,535)	(735)
Change in the year		(503)	(437)	
Balance December 31	-	(3,475)	(2,972)	(1,800) (2,535)
Unrealized gain on available-for-sale security	_	(3,473)	(2,912)	(2,333)
Balance January 1		24	54	30
Change in the year		(24)	(30)	24
Balance December 31	-	- ()	24	54
Adjustments relating to investments in affiliates	-			
Balance January 1		8	(6)	(7)
Change in the year		2	14	1
Balance December 31	-	10	8	(6)
Total other cumulative comprehensive income	-	(3,465)	(3,040)	(2,487)
Appropriated retained earnings	-	(3,403)	(3,040)	(2,407)
Balance January 1		3,537	3,567	5,212
Transfer to retained earnings		(14)	(30)	(1,458)
Transfer to capital stock.		(311)	(50)	(187)
Balance December 31	-	3,212	3,537	3,567
Retained earnings	-	3,212	5,557	3,507
Balance January 1		1,647	1,186	(193)
Net income		1,287	1,086	412
Interest attributed to stockholders				
Preferred class A stock (\$1.99, \$1.70 and \$1.28 per share in 2001, 2000 and 1999)		(276)	(230)	(172)
Common stock (\$1.99, \$1.70 and \$1.28 per share in 2001, 2000 and 1999)		(488)	(425)	(319)
Appropriation from reserves	=	14	30	1,458
Balance December 31	202.042.505	2,184	1,647	1,186
Total stockholders' equity	383,843,795	4,640	4,569	4,691
Comprehensive income is comprised as follows:  Net income		1,287	1,086	412
Amounts not recognized as net periodic pension cost		1,287	(100)	153
Cumulative translation adjustments		(503)	(437)	(1,800)
Unrealized gain on available-for-sale security		(24)	(30)	24
Adjustments relating to investments in affiliates	-	2	14	(1.210)
Total comprehensive income (loss)	=	862	533	(1,210)

See notes to consolidated financial information.

#### 1 The Company and its operations

Companhia Vale do Rio Doce (CVRD) is a limited liability company, duly organized and existing under the laws of the Federative Republic of Brazil. Our operations are carried out through CVRD and its subsidiary companies, joint ventures and affiliates, and mainly consist of mining, non-ferrous metal production and logistics, as well as pulp and paper, aluminum and steel activities. Further details of our operations and those of our joint ventures and affiliates are described in Note 16.

The main operating subsidiaries we consolidate are as follows:

Subsidiary	% ownership	Head office location	Principal activity
Ferteco Mineração S.A FERTECO	100	Brazil	Iron ore and pellets
Pará Pigmentos S.A.	80	Brazil	Kaolin
SIBRA - Eletros iderúrgica Brasileira S.A.	98	Brazil	Ferrous alloys
Navegação Vale do Rio Doce S.A DOCENAVE	100	Brazil	Shipping
Vale do Rio Doce Alumínio S.A ALUVALE	100	Brazil	Aluminum
Itabira Rio Doce Company Ltd ITACO	100	Cayman Island	Trading
Rio Doce International Finance Ltd RDIF	100	Bahamas	International finance
CELMAR S.A Indústria de Celulose e Papel	85	Brazil	Pulp
Florestas Rio Doce S.A.	100	Brazil	Pulp
Rio Doce Manganèse Europe - RDME	100	France	Ferrous alloys
Urucum Mineração S.A.	100	Brazil	Iron ore

### 2 Summary of significant accounting policies

In preparing the consolidated financial information, we are required to use estimates to account for certain assets, liabilities, revenues and expenses. Our consolidated financial information therefore includes various estimates concerning the selection of useful lives of property, plant and equipment, provisions necessary for contingent liabilities, fair values assigned to assets and liabilities acquired in business combinations, income tax valuation allowances, employee post-retirement benefits and other similar evaluations; actual results may vary from our estimates.

#### (a) Basis of presentation

We have prepared the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("US GAAP"), which differ in certain respects from the Brazilian accounting principles that we use in preparing our statutory financial information.

The U.S. dollar amounts for the period presented have been remeasured (translated) from the Brazilian currency amounts in accordance with the criteria set forth in Statement of Financial Accounting Standards 52 – "Foreign Currency Translation" (SFAS 52).

Prior to July 1, 1997, Brazil was considered under SFAS 52 to have a highly inflationary economy, defined as an economy in which the cumulative inflation rate over the latest thirty-six month period has exceeded 100%. Accordingly, up to June 30, 1997, we adopted the U.S. dollar as both our functional currency and reporting currency.

As from July 1, 1997, we concluded that the Brazilian economy had ceased to be highly inflationary and changed our functional currency from the reporting currency (U.S. dollars) to the local currency (Brazilian reais). Accordingly, at July 1, 1997, we translated the U.S. dollar amounts of non-monetary assets and liabilities into reais at the current exchange rate, and those amounts became the new accounting bases for such assets and liabilities. The resulting deferred taxes associated with the differences between the new functional currency bases and the tax bases, including those relating to

affiliates and joint ventures, net of related valuation allowances, were reflected in the cumulative translation adjustments component of stockholders' equity.

We have remeasured all assets and liabilities into U.S. dollars at the current exchange rate at each balance sheet date (R\$2.3204 and R\$1.9554 to US\$1.00 at December 31, 2001 and 2000, respectively), and all accounts in the statements of income (including amounts relative to local currency indexation and exchange variances on assets and liabilities denominated in foreign currency) at the average rates prevailing during the period. The translation gain or loss resulting from this remeasurement process is included in the cumulative translation adjustments account in stockholders' equity.

The net exchange transaction loss included in our statement of income was \$410, \$115 and \$265 in 2001, 2000 and 1999, respectively, with the line "Foreign exchange and monetary losses, net".

#### (b) Basis of consolidation

All majority-owned subsidiaries where we have both share and management control are consolidated, with elimination of all significant intercompany accounts and transactions. Investments in unconsolidated affiliates and joint ventures are reported at cost less amortized goodwill plus our equity in undistributed earnings or losses. Included in this category are certain joint ventures in which we have majority ownership but, by force of shareholders' agreements, do not have effective management control. We provide for losses on equity investments with negative stockholders' equity where applicable (see Note 10).

We evaluate the carrying value of our listed investments relative to publicly available quoted market prices. If the quoted market price is below book value, and such decline is considered other than temporary, we write-down our equity investments to quoted market value.

We define joint ventures as businesses in which we and a small group of other partners each participate actively in the overall entity management, based on a shareholders agreement. We define affiliates as businesses in which we participate as a minority stockholder but with significant influence over the operating and financial policies of the investee.

#### (c) Business combinations

We adopt the procedures determined by Accounting Principles Board Opinion 16 – "Business Combinations" (APB 16) to recognize acquisitions of interests in other companies. The method of accounting normally used in our business combination transactions is the "purchase method", which requires that acquirers reasonably determine the fair value of the identifiable assets and liabilities of acquired companies, individually, in order to determine the goodwill paid in the purchase to be recognized as an intangible asset. On the acquisition of assets which include the rights to mine reserves of natural resources, the establishment of values for these assets includes the placing of fair values on purchased reserves, which are classified in the balance sheet as property, plant and equipment.

Goodwill recorded in our business combination transactions realized prior to July 1, 2001 is amortized in a systematic manner over the periods estimated to be benefited through December 31, 2001.

For acquisitions after July 1, 2001 goodwill resulting from the acquisitions is not amortized.

#### (d) Inventories

Inventories are stated at the average cost of purchase or production, lower than replacement or realizable values. We record allowances for slow-moving or obsolete inventories when considered appropriate, reflecting our periodic assessment of recoverability. A write-down of inventory utilizing the allowance establishes a new cost basis for the related inventory.

Finished goods inventories include all related materials, labor and direct production expenditures, and exclude general and administrative expenses.

#### (e) Property, plant and equipment

Property, plant and equipment are recorded at cost, including interest cost incurred during the construction of major new facilities. We compute depreciation on the straight-line basis at rates which take into consideration the useful lives of the items, principally an average of 80 years for the railroads, 20 years for ships, 25 years for buildings and improvements and between 10 to 20 years for mining and other equipment. Expenditures for maintenance and repairs are charged to operating costs and expenses as incurred.

We capitalize the costs of developing major new ore bodies or expanding the capacity of operating mines and amortize these to operations on the unit-of-production method based on the total probable and proven quantity of ore to be recovered. Exploration costs are expensed until viability of mining activities is established; subsequently such costs are capitalized together with further exploration costs. We capitalize mine development costs as from the time we actually begin such development.

#### (f) Available-for-sale equity securities

Equity securities classified as "available-for-sale" are recorded in accordance with SFAS 115 "Accounting for Certain Investments in Debt and Equity Securities". Accordingly, we exclude unrealized holding gains and losses, net of taxes, if applicable, from income and recognize them as a separate component of stockholders' equity until realized.

#### (g) Revenues and expenses

Revenues are recognized when title has transferred to the customer or services are rendered. Expenses and costs are recognized on the accrual basis. Revenue from exported products is recognized when such products are loaded on board the ship. Revenue from products sold in the domestic market is recognized when delivery is made to the customer. Revenue from transportation services, other than shipping operations, is recognized when the service order has been fulfilled. Shipping operations are recorded on the completed voyage basis and net revenue, costs and expenses of voyages not completed at period-end are deferred. Anticipated losses on voyages are provided when probable and can be reasonably estimated.

#### (h) Environmental and site reclamation and restoration costs

Expenditures relating to ongoing compliance with environmental regulations are charged against earnings or capitalized as appropriate. These ongoing programs are designed to minimize the environmental impact of our activities. With respect to our two major iron ore mines at Itabira and Carajás, which have extensive remaining reserves, liabilities for final site reclamation and restoration costs will be recorded when the respective reclamation and restoration strategies can be reasonably determined and the related costs can be reasonably estimated.

#### (i) Compensated absences

We fully accrue the liability for future compensation to employees for vacations vested during the year.

#### (j) Income taxes

In accordance with SFAS 109 "Accounting for Income Taxes", the deferred tax effects of temporary differences have been recognized in the consolidated financial statements. A valuation allowance is made when we believe that it is more likely than not that tax assets will not be fully recoverable in the future.

#### (k) Statement of cash flows

Cash flows relating to overnight financing and investment are reported net. Short-term investments that have a ready market and maturity to us, when purchased, of 90 days or less are considered cash equivalents.

At December 31, 2001 and 2000 dividends of \$132 and \$133, respectively, received from equity method affiliates and joint ventures have been netted against the equity in results of these entities in the statement of cash flows. For comparative purposes dividends received in 1999 of \$64 have been reclassified from investing activities to reflect the same presentation.

#### (l) Earnings per share

Earnings per share are computed by dividing net income by the weighted average number of common and preferred shares outstanding during the period.

#### (m) Interest attributed to stockholders

As from January 1, 1996 Brazilian corporations are permitted to attribute interest on stockholders' equity. The calculation is based on the stockholders' equity amounts as stated in the statutory accounting records and the interest rate applied may not exceed the long-term interest rate (TJLP) determined by the Brazilian Central Bank. Also, such interest may not exceed the greater of 50% of net income for the year or 50% of retained earnings plus revenue reserves.

The amount of interest attributed to stockholders is deductible for income tax purposes. Accordingly, the benefit to us, as opposed to making a dividend payment, is a reduction in our income tax charge equivalent to the statutory tax rate applied to such amount. Income tax is withheld from the stockholders relative to interest at the rate of 15%, except for interest due to the Brazilian Government which is exempt from tax withholdings.

We have opted to pay such tax-deductible interest to our stockholders and have therefore accrued the amounts due as of December 31, 2001 and 2000, with a direct charge to stockholders' equity.

Under Brazilian law interest attributable to stockholders is considered as part of the annual minimum dividend (See Note 13). Accordingly such distributions are treated as dividends for accounting purposes.

#### n) Derivatives and hedging activities

As of January 1, 2001 we adopted SFAS 133 "Accounting for Derivative Financial Instruments and Hedging Activities", as amended by SFAS 137 and SFAS 138. Those standards require that we recognize all derivative financial instruments as either assets or liabilities on our balance sheet and measure such instruments at fair value. Changes in the fair value of derivatives are recorded in each period in current earnings or in other comprehensive income, in the later case depending on whether a transaction is designated as an effective hedge.

The transition adjustment relating to the fair value of derivatives existing as of December 31, 2000 is recorded as a charge of \$8 in our statement of income for the year ended December 31, 2001. In view of the immateriality of this effect of a change in accounting principle the corresponding amount was included with other non-operating expenses. Certain of our affiliated companies and joint ventures also recorded similar charges, of which our portion of \$4 is included in the caption "Equity in results of affiliates and joint ventures" in the statement of income.

Further information about our derivatives and hedging activities is included in Note 19.

#### (o) Comprehensive income

We have disclosed comprehensive income as part of the Statement of Changes in Stockholders' Equity, in compliance with SFAS 130 – "Reporting Comprehensive Income".

#### (p) Recently-issued accounting pronouncements

In June 2001 the Financial Accounting Standards Board (FASB) issued SFAS 141 "Business Combinations" and SFAS 142 "Goodwill and Other Intangible Assets". We do not expect that the provisions of SFAS 141 will affect our current accounting practices relative to business combinations. However, the adoption of SFAS 142 on January 1, 2002 (or immediately for goodwill relating to acquisitions after June 30, 2001) is expected to have the following effects:

- (i) goodwill relative to consolidated subsidiaries will no longer be amortized, but will be aggregated to reporting units and subject at least annually to testing for impairment, considering the reporting unit as a whole.
- (ii) goodwill relative to affiliates and joint ventures will no longer be amortized but will remain allocated to the respective investment and included in the measurement of the gain or loss on sale, or the loss arising from an other than temporary decline in the value of the investment.

Goodwill charged against earnings for the year December 31, 2001 totaled \$45 relating to subsidiaries and \$47 relating to equity investees which were classified as other operating expenses and equity in results of affiliates and joint ventures, respectively.

In June 2001 and August 2001, respectively, the FASB also issued SFAS 143 "Accounting for Asset Retirement Obligations" and SFAS 144 "Accounting for the Impairment or Disposal of Long-Lived Assets". SFAS 143 is effective for us as from January 1, 2003 and we are still studying the potential effects that adoption may have on our financial statements. SFAS 144 will be effective for us as from January 1, 2002 and the provisions thereof generally are to be applied prospectively.

#### 3 Our privatization

In May 1997, we were privatized by the Brazilian Government, which transferred voting control to Valepar S.A. ("Valepar"). The Brazilian Government has retained certain rights with respect to our future decisions and those of Valepar and has also caused us to enter into agreements which may affect our activities and results of operations in the future. These rights and agreements are:

- Preferred Special Share. The Brazilian Government holds a preferred special share of CVRD which confers upon it permanent veto rights over changes in our (i) name, (ii) headquarters location, (iii) corporate purpose with respect to mineral exploration, (iv) continued operation of our integrated iron ore mining systems and (v) certain other matters.
- Preferred Class A Share of Valepar. The Brazilian Government holds a preferred class A share of Valepar which confers upon it approval rights for a period of five years in respect of (i) concentration of ownership of Valepar by particular types of investors in excess of prescribed limitations and (ii) changes in the Valepar holding company structure relating to ownership of our common shares.
- Shareholder revenue interests. On July 7, 1997, we issued to shareholders of record on April 18, 1997 (including the Brazilian Government) revenue interests providing holders thereof with the right to receive semi-annual payments based on a percentage of our net revenues above threshold production volumes from identified mining resources. These instruments are not secured by the corresponding mineral reserves and deposits.

In addition to the preferred special share mentioned above, the National Treasury and the Banco Nacional de Desenvolvimento Econômico e Social – BNDES, the Government – owned development bank, together hold 32% of our common shares and 4% of our preferred shares, which in aggregate represents 22% of our total capital at December 31, 2001. These common shares were sold through a public offering in Brazil and abroad which was completed on March 27, 2002.

#### 4 Major acquisitions and disposals during the years presented

We made the following acquisitions during the periods presented. Pro forma information with respect to results of operations is not presented since the effects are not considered material to an understanding of our consolidated financial statements.

- (a) On May 11, 2000, we acquired the entire capital of Mineração SOCOIMEX S.A., a non-public company whose main activity is production and commercialization of iron ore, for the total price of \$55, being an initial cash payment of \$47 and two further cash payments of \$3 and \$5, in 2001 and 2002, respectively, plus interest based on 89% of the Brazilian Interbank Rate through the payment date. The increment of the fair value over the book value of SOCOIMEX at the date of purchase was entirely attributable to its mineral reserves, which are included in the property, plant and equipment. In August 2000 SOCOIMEX was merged into CVRD.
- (b) On May 30, 2000, we acquired 4,026,694,190 common shares and 4,231,324,374 preferred shares of S.A. Mineração Trindade SAMITRI, representing 79.27% of the voting capital and 63.06% of the total capital for \$520 in cash, becoming the controlling stockholder. At the date of the purchase, SAMITRI was a publicly listed Brazilian iron ore mining company, which also owned a 51% interest in the voting capital of SAMARCO Mineração S.A., a large iron ore pellets producer (see Note 10). On June 29, 2000, we sold 1% of the share capital of SAMARCO to BHP Brasil Ltda. (BHP), a subsidiary of The Broken Hill Proprietary Company Limited of Australia, for \$8, to equalize our shareholdings in the joint venture.

(c) The assets and liabilities acquired as a result of the above transactions and corresponding goodwill were as follows:

		Consolidated Subsidian	
_	Unconsolidated joint venture SAMARCO	SAMITRI	SOCOIMEX
Fair value of assets Fair value of liabilities	1,006 (450)	293 (144)	77 (22)
Net assets at fair value	556	149	55
Interest acquired	50.00%	63.06%	100.00%
Fair value of net assets acquired  Attributable to minority stockholders	278	94	55
of SAMITRI (36.94%)	(103)	-	-
Tax benefits	31		
Effective interest acquired	206	94	55
Purchase price	252	268	55
Goodwill	46	174	

The main assets for which fair values differ from book values are inventories and property, plant and equipment. We determined the fair values of inventories based on the current replacement costs for raw materials and the estimated selling prices for finished goods, net of disposal costs and a selling margin. The fair values of property, plant and equipment were determined based on current replacement costs for similar capacity and the estimated market value of purchased reserves. Deferred taxes were recorded for the differences between fair values and tax bases.

For SAMARCO, SAMITRI and SOCOIMEX inventories were valued at \$36, \$38 and \$9, respectively, property, plant and equipment were valued at \$830, \$161 and \$58, respectively, and the deferred tax liability was \$60, \$49 and \$15, respectively.

We had adopted a policy to amortize the goodwill on the SAMITRI and SAMARCO purchases on the straight-line basis over a period of 6 years, starting on the date of acquisition. However, as explained in note 2(p), upon adoption of SFAS 142 on January 1, 2002 such straight-line amortization will cease.

- (d) On September 22, 2000 we acquired via public tender a further 1,014,529,197 common shares and 3,716,344,366 preferred shares of SAMITRI bringing our ownership to 99.25% of the voting capital and 99.19% of the total capital. The cash cost of this purchase was \$180 and resulted in additional goodwill of \$27, all attributed to SAMARCO.
- (e) In October 2000, we acquired 50% of Gulf Industrial Investment Company (GIIC), a pelletizing company located in Bahrain, for \$91, including goodwill of \$20 totally amortized.
- (f) On April 27, 2001 we acquired 100% of Ferteco Mineração S.A. FERTECO, a non-public company whose main activity is production and commercialization of iron ore and pellets, for \$523 in cash.

The assets and liabilities acquired and corresponding goodwill were as follows:

Fair value of assets	401
Fair value of liabilities	(251)
Net assets at fair value.	150
Purchase price.	523
Goodwill	373

For FERTECO inventories were valued at \$57, property, plant and equipment were valued at \$178, and the deferred tax liability was \$24.

- (g) On January 14, 2000 we sold 20.81% of the capital of Alumina do Norte do Brasil S.A.- ALUNORTE and a beneficial interest in 8% of the capital of Mineração Rio do Norte S.A. MRN owned by us for an aggregate of \$164, resulting in a gain of \$54. The total consideration of \$164 was received in cash; however, \$120 was received through the issue and sale of Perpetual Notes with a fair value of \$55 and this fair value continues to be reported as a liability and periodically adjusted based on an early termination formula reflecting the underlying profitability of MRN.
- (h) On March 9, 2001 we transferred our 10.33% interest in Companhia Siderúrgica Nacional CSN to VALIA, as a special pension plan contribution, for \$249 (fair market value determined based on the weighted average price of the last thirty trading sessions at the São Paulo stock exchange in the period ended on March 9, 2001). This transfer resulted in a gain of \$107.
- (i) On April 27, 2001 we concluded the sale of our 32.00% interest in Bahia Sul Celulose S.A. BSC for \$318, received in cash on May 7, 2001. This operation resulted in a gain of \$170.
- (j) On June 6, 2001 we concluded the sale of our 51.48% interest in Celulose Nipo-Brasileira S.A. CENIBRA for \$671, received in cash on September 14, 2001. This operation resulted in a gain of \$507.
- (k) In December 2001, we acting through our wholly-owned foreign subsidiary Itabira Rio Doce Company Ltd. ITACO, acquired 659,375,000 common shares of Caemi Mineração e Metalurgia S.A. (Caemi), corresponding to 50% of its voting capital from Cayman Iron Ore Investment Co., Ltd., a wholly-owned subsidiary of Japan's Mitsui & Co., Ltd. (MITSUI) for US\$ 279. Caemi is a Brazilian company headquartered in Rio de Janeiro, which operates in the iron ore, kaolin, refractory bauxite and railroad sectors and is accounted for as an equity investee.

This acquisition was approved by the European Commission subject to the commitment for Caemi to sell its equity investment in Quebec Cartier Mining Company (QCM), a Canadian producer of iron ore and pellets.

CVRD and Mitsui each of which holds 50% of Caemi's common shares, entered into a shareholder agreement requiring both shareholders to approve all major decisions affecting Caemi.

The estimated assets and corresponding goodwill were as follows:

	December 31, 2001
Estimated fair value of assets	1,127
Estimated fair value of liabilities.	(734)
Net assets at book value	393
Interest in total capital acquired	16.82%
Estimated fair value of net assets acquired	66
Purchase price	279
Goodwill	213

#### 5 Income taxes

Income taxes in Brazil comprise federal income tax and social contribution, which is an additional federal tax. The statutory enacted tax rates applicable in the periods presented are as follows:

_	Year ended December 31 - %		
_	2001	2000	1999
Federal income tax	25	25	25
Social contribution (*)	9	12 to 9	8 to 12
Composite tax rate	34	37 to 34	33 to 37

(\*) As from May 1, 1999 through January 31, 2000, the social contribution rate was increased from 8% to 12%. February 1, 2000 to December 31, 2002 the rate was reduced to 9%.

The amount reported as income tax benefit in this consolidated financial information is reconciled to the statutory rates as follows:

	Year ended December 3		mber 31
	2001	2000	1999
Income before income taxes, equity results and minority interests	1,120	731	670
Federal income tax and social contribution expense at statutory enacted rates	(381)	(249)	(248)
Tax benefit on interest attributed to stockholders	260	222	181
Exempt foreign income	226	69	(4)
Tax-dedutible in goodwill business combination	58	-	-
Tax effect related to provision for losses and write-downs	59	-	-
Tax incentives	26	31	-
Valuation allowance reversal (provision)	(44)	(51)	37
Other non-taxable gains	14	10	1
Federal income tax and social contribution expense in consolidated statements of			
income	218	32	(33)

We have certain tax incentives relative to our iron ore and manganese operations in Carajás and other from gold and potash operations. The incentives comprise full income tax exemption on defined production levels up to 2005 and partial exemption up to 2013. An amount equal to the tax saving must be appropriated to a reserve account within stockholders' equity (Note 13) and may not be distributed in the form of cash dividends.

The major components of the deferred tax accounts in the balance sheet are as follows:

<b>,</b>	As of Dece	mber 31
	2001	2000
Net current deferred tax assets		
Accrued expenses deductible only when disbursed	265	89
	265	89
Long-term deferred tax assets and liabilities		
Assets		
Deferred tax relative to temporary differences:		
Established on the July 1, 1997 change in functional currency, less reversals	9	16
Relative to investments acquired	9	15
Tax-deductible goodwill in business combinations	134	103
Related to provision for losses and write-downs of investments	120	61
Additional retirement benefits provision (in 2000 net of		
unrecognized pension obligation)	58	158
Tax loss carryforwards	220	190
Other temporary differences	21	6
	571	549
Liabilities		
Inflationary income	(25)	(32)
Prepaid retirement benefit	(34)	-
Fair value adjustments in business combinations	(72)	(61)
_	(131)	(93)
Valuation allowance		
Beginning balance	(201)	(178)
Translation adjustments	32	15
Additions	(44)	(51)
Reversals	-	13
Ending balance	(213)	(201)
Net long-term deferred tax assets	227	255

## 6 Cash and cash equivalents

_	As of December 31	
_	2001	2000
Cash	22	28
Deposits in local currency	76	694
Deposits in United States dollars	1,019	489
	1,117	1,211

#### 7 Accounts receivable

	As of December 3	
	2001	2000
Customers	· ·	
Domestic	170	198
Export, all denominated in		
United States dollars	408	312
	578	510
Allowance for doubtful accounts	(21)	(14)
Allowance for ore weight credits	(8)	(6)
Total	549	490

Accounts receivable from customers in the steel industry amount to 28.3% and 16.3% of domestic receivables (export receivables – 91.5% and 78.8%) at December 31, 2001 and 2000, respectively. No single customer accounted for more than 10% of total revenues in any of the years presented.

#### 8 Inventories

-	Aso	f December 31
_	2001	2000
Finished products		_
Iron ore	110	100
Gold	5	4
M anganese	27	7
Ferrous alloys	28	32
Others	16	34
Spare parts and maintenance supplies	137	129
	323	306

## 9 Property, plant and equipment

#### a) Per business area:

		As of December	er 31, 2001		As of December 31, 2		
		Accumulated			Accumulated		
	Cost	depreciation	Net	Cost	depreciation	Net	
Ferrous							
Ferrous - Southern System							
M in in g	1.000	460	540	1.096	533	563	
Railroads	935	463	472	1.022	513	509	
Marine terminals	194	92	102	157	102	55	
	2.129	1.015	1.114	2.275	1.148	1.127	
Ferrous - Northern System							
Mining	733	308	425	691	310	381	
Railroads	1.075	408	667	1.206	439	767	
Marine terminals	202	97	105	222	108	114	
	2.010	813	1.197	2.119	857	1.262	
Pelletizin g	198	108	90	194	123	71	
Ferrous-alloys	206	106	100	278	140	138	
Energy	82	6	76	77	4	73	
Construction in progress	569	-	569	406	-	406	
	5.194	2.048	3.146	5.349	2.272	3.077	
Non-Ferrous							
Potash	50	17	33	47	16	31	
Go ld	256	167	89	295	132	163	
Kaolin	96	21	75	91	12	79	
Research and projects	17	9	8	19	10	9	
Construction in progress	35	_	35	43	-	43	
Construction in progress	454	214	240	495	170	325	
Logistics				4,5	170	020	
General cargo	353	179	174	349	173	176	
=	238	130	108	351	167	184	
Maritime transportation					107		
Construction in progress	23			14		14	
	614	309	305	714	340	374	
Holdings Pulp and paper	58	13	45	175	26	149	
Others	14	7	7	-	-	147	
Construction in progress	45	-	45	-	-	-	
	117	20	97	175	26	149	
Corporate Center							
Corporate	40	17	23	41	15	26	
Construction in progress	2	-	2	4	_	4	
	42	17	25	45	15	30	

## b) Per type of assets:

		As of Decembe	er 31, 2001		er 31, 2000	
_	Cost	Accumulated depreciation	Net	Cost	Accumulated depreciation	Net
Land and buildings	678	255	423	824	289	535
Installations	1.470	775	695	1.634	885	749
Equipment	673	306	367	597	290	307
Ships	235	127	108	348	165	183
Railroads	1.675	729	946	1.741	770	971
Mine development costs	302	77	225	326	83	243
Others	714	339	375	841	341	500
	5.747	2.608	3.139	6.311	2.823	3.488
Construction in progress	674	-	674	467	-	467
Total	6.421	2.608	3.813	6.778	2.823	3.955

Losses on disposals of property, plant and equipment totaled \$48, \$47 and \$23 in 2001, 2000 and 1999, respectively. In 2001, 2000 and 1999, disposals mainly relate to sales of ships, trucks, locomotives and other equipment which were replaced in the normal course of business.

#### 10 Investments

Investments							As of	Decen	iber 31
				2001	Inves	tments		Adius	Equity tments
	Partici in ca	pital	(1)Net equity	(1)Net income (loss) for the year	2001		2001		1999
Investments in effiliated companies and inint ventures	voting	total							
Investments in affiliated companies and joint ventures Steel	voting	totai							
Usinas Siderúrgicas de Minas Gerais S.A - USIMINAS (3)	22.99	11.46	279	(3)	32	40	_	7	(13)
Companhia Siderúrgica Nacional - CSN (2)		-		(5)	-	167	9	13	3
Companhia Siderúrgica de Tubarão - CST (3)		22.85	79	(4)	18	35	(1)	22	(5)
California Steel Industries Inc CSI	50.00	50.00	195	(6)	98	119	(3)	17	22
Paper and pulp									
Celulose Nipo-Brasileira S.A CENIBRA (2)			-	17	-	210	9	66	(4)
Bahia-Sul Celulose S.A - BSC (2)			-	6	-	162	2	42	13
Aluminum and bauxite									
Mineração Rio do Norte S.A MRN	. 40.00	40.00	386	81	154	153	32	36	10
Valesul Alumínio S.A VALESUL	. 54.51	54.51	93	21	51	44	11	12	-
Alumina do Norte do Brasil S.A ALUNORTE	50.31	45.58	142	(13)	89	80	(6)	11	-
Pellets									
Companhia Nipo-Brasileira de Pelotização - NIBRASCO	51.11	51.00	32	(3)	16	28	(2)	11	10
Companhia Hispano-Brasileira de Pelotização - HISPANOBRÁS	51.00	50.89	36	9	18	21	5	9	7
Companhia Coreano Brasileira de Pelotização - KOBRASCO	. 50.00	50.00	4	(17)	2	12	(8)	2	(11)
Companhia Ítalo-Brasileira de Pelotização - ITABRASCO	51.00	50.90	26	8	13	16	4	7	7
Gulf Industrial Investment Company - GIIC(5)	. 50.00	50.00	75	13	38	93	(17)	1	-
SAMARCO Mineração S.A(5)	50.00	50.00	433	36	258	318	11	8	-
Others									
Fertilizantes Fosfatados S.A FOSFERTIL (3)			264	47	29	31	5	5	7
Caemi Mineração e Metalurgia S.A			393	-	289	-	-	-	-
Salobo Metais S.A (4)			44	-	22	25	- (0.5)	-	-
Ferrovia Centro-Atlântica S.A - FCA(5)		45.65	-	(47)	-	82	(95)	(30)	- (5)
Others	•		-	-	1,189	131 1,767	(5) (49)	21 260	41
Investments at cost									
SIDERAR (market value \$11 in 2001 - \$42 in 2000)	4.85	4.85			15	15	-	-	-
Unrealized holding gains on equity security					(4)	27	-	-	-
MRS Logística S.A	17.19	9.76			22	-	-	-	-
Others					5	7	(40)	260	- 41
Change in provision for losses on equity investments:					1,227	1,816	(49)	260	41
Pará Pigmentos S.A							-	-	(15)
Vale Usiminas Participações S.A VUPSA							-	-	(56)
Alumina do Norte do Brasil S.A ALUNORTE							-	-	(89)
Alumínio Brasileiro S.A ALBRAS							4	66	(104)
Companhia Ferroviária do Nordeste							(8)	(4)	(4)
							(4)	62	(268)

<sup>(1)</sup> Based on US GAAP financial statements.

<sup>(2)</sup> Investments sold in 2001.

<sup>(3)</sup> Value based on quoted market price at December 31, 2001 is \$41 and \$172 for Usiminas and CST, respectively. Investments in Usiminas and CST are presented net of write-down provisions of \$185 and \$215, respectively, for all periods presented.

<sup>(4)</sup> Development stage enterprise.

<sup>(5)</sup> Equity adjustments incudes amortization of goodwill in the amonts of Samarco \$7, GIIC \$23 and FCA \$74.

Goodwill included in the above investments is as follows:

-	As of December 31		
Investee	2001	2000	
Alumina do Norte do Brasil S.A ALUNORTE	24	30	
SAMARCO Mineração S.A	41	59	
Ferrovia Centro-Atlântica S.A FCA	-	22	
Gulf Industrial Investment Company - GIIC	-	20	
Caemi Mineração e Metalurgia S.A	223	<u>-</u> .	
_	288	131	

Based on our revised expectation for profitability and other economic facts, we fully amortized the remaining goodwill relative to FCA and GIIC in 2001.

The combined financial position and results of operations of our affiliates in the steel sector is as follows:

	Steel sector affiliates (Combined)			
	As of December 31			
	2001	2000		
Balance sheet				
Current assets	1,139	3,094		
Noncurrent assets	6,070	10,231		
Current liabilities	(1,071)	(2,695)		
Noncurrent liabilities	(2,584)	(5,094)		
Purchase accounting adjustments	(3,001)	(3,175)		
Stockholders' equity	553	2,361		
Investments	148	361		

	Steel sector affiliates (Combined)						
	Yea	Year ended December 31					
	2001	2000	1999				
Statement of operations							
Net sales	3,293	4,581	4,174				
Costs and expenses	(3,276)	(4,082)	(4,790)				
Purchase accounting adjustments	3	24	83				
Income before income taxes	20	523	(533)				
Income taxes	59	(199)	556				
Net income	79	324	23				
Equity adjustments	5	59	7				

Information with respect to other major affiliates' financial position and results of operations is as follows:

					A	s of Dece	mber 31
	CAEMI	CAEMI ALUNORTE		E ALBRAS			MRN
	2001	2001	2000	2001	2000	2001	2000
Balance Sheet							
Current assets	398	159	130	158	128	55	90
Noncurrent assets	729	509	505	510	627	425	349
Current liabilities	(307)	(95)	(79)	(219)	(247)	(35)	(19)
Noncurrent liabilities	(427)	(431)	(454)	(463)	(538)	(59)	(37)
Stockholders' equity	393	142	102	(14)	(30)	386	383
Our participation	16.82%	45.58%	49.29%	51.00%	51.00%	40.00%	40.00%
Investments	66	65	50	(7)	(15)	154	153

_							Year en	ded Dece	mber 31
_		ALU	NORTE		A	LBRAS			MRN
_	2001	2000	1999	2001	2000	1999	2001	2000	1999
Statement of Operations									
Net sales	294	322	253	472	551	459	211	217	205
Costs and expenses	(302)	(327)	(446)(	*) (429)	(452)	(755)	(*)(121)	(109)	(156)
Income (loss) before income									
taxes	(8)	(5)	(193)	43	99	(296)	90	108	49
Income taxes	(5)	28	56	(35)	30	93	(9)	(17)	(23)
Net income (loss)	(13)	23	(137)	8	129	(203)	81	91	26
Our participation	45.58%	49.29%	65.82%	51.00%	51.00%	51.00%	40.00%	40.00%	40.00%
Participation in results	(6)	11	(89)	4	66	(104)	32	36	10
Change in provision for losses			89	(4)	(66)	104			-
Equity adjustments	(6)	11				-	32	36	10

<sup>(\*)</sup> Includes exchange losses of \$213 (ALUNORTE), and \$378 (ALBRAS) for the year ended December 31, 1999 - see Note 20.

The provision for losses on equity investments of \$9 and \$21 at December 31, 2001 and 2000, respectively, relates to our investments in affiliates which have reported negative stockholders' equity in their financial statements prepared in accordance with US GAAP and in circumstances where we have assumed commitments to fund our share of the accumulated losses, if necessary, through additional capital contributions or other means. Accordingly we (a) first reduce the value of the investment to zero and (b) subsequently provide for our portion of negative equity. The provision is comprised as follows:

	Cia Ferroviária do Nordeste	ALBRAS	TOTAL
Provision at January 1, 2000	(4)	(83)	(87)
Change in provision - results	(4)	66	62
Payment of capital	1	-	1
Translation adjustment	1	2	3
Provision at December 31, 2000	(6)	(15)	(21)
Change in provision - results	(8)	4	(4)
Payment of capital	10	-	10
Translation adjustment	2	4	6
Provision at December 31, 2001	(2)	(7)	(9)

Our participation in ALUNORTE (45.58% at December 31, 2001) changed several times during the periods presented, but we did not consolidate the financial statements of this investee due to the temporary nature of our increased holding. Movements on the investment account and related provision during the three years ended December 31, 2001 are as follows:

	Total shares of ALUNORTE (in thousands)	ALUNORTE shares owned by CVRD (in thous ands)	Investment	Goodwill	Provision	Net
Balance January 1, 1999	325,107	174,279	-	-	(9)	(9)
Purchase of additional participation:						-
January 1999	453,921	124,491	68	48	9	125
December 1999	598,184	144,263	55	30	-	85
Participation in 1999 losses		-	(89)	-	-	(89)
Translation adjustment	-		(7)			(7)
Balance December 31, 1999	598,184	443,033	27	78	-	105
Sale of participation in January 2000	598,184	(124,491)	(7)	(48)	-	(55)
Changes in participation-subscriptions by other shareholders	-	-	19	-	-	19
Capital call	673,494	13,437	5	-	-	5
Participation in 2000 net income	<del>-</del>	-	11	-	-	11
Translation adjustment	-		(5)			(5)
Balance December 31, 2000	673,494	331,979	50	30	-	80
Purchase of additional participation Changes in participation-subscriptions by	211,916	71,542	20	-	-	20
other shareholders	-	-	6	-	-	6
Participation in 2001 net income	<del>-</del>	-	(6)	-	-	(6)
Goodwill amortized	-	-	-	(1)	-	(1)
Translation adjustment	-		(5)	(5)		(10)
Balance December 31, 2001	885,410	403,521	65	24		89

On January 14, 2000 we entered into a structured transaction with an unrelated party to sell both a 20.81% of the capital of ALUNORTE and a beneficial interest in 8% of the capital of MRN owned by us for a total of \$164, resulting in a net gain to us of \$54, recorded in other operating income, as follows:

Book value of 124,491 thousand shares of ALUNORTE sold	(7)
Goodwill amortized	(48)
Book value of beneficial interest in 8% of MRN	
	(55)
Cash received by us	
On transfer of ALUNORTE shares	44
On issue and sale of Perpetual Notes	120
Fair value of Perpetual Notes	(55)
Gain recognized on the transaction	

The Perpetual Notes are exchangeable for 48 billion preferred shares of the affiliate MRN (initially equivalent to 8% of the total number of shares of MRN owned by us). Interest is payable on the Notes in an amount equal to dividends paid on the underlying preferred shares, relative to periods starting as from the 2000 fiscal year. The Notes may be redeemed at our option or the Noteholders at any time by transfer of the underlying preferred shares to the Noteholders, providing the rights of pre-emption of the existing shareholders of MRN have been waived or have expired. Redemption by transfer of the underlying net assets of MRN is compulsory if certain events occur, including the liquidation or merger of MRN or the transfer of MRN's asset and liabilities to a consortium formed by its shareholders to take over the operations of MRN. In the event of early termination the Notes may be redeemed, at the option the Noteholders, in lieu of transfer of the shares, for a cash sum equal to \$48 plus the net present value of average annual earnings declared and paid by MRN for the three years immediately preceding such termination multiplied by 20 and discounted by 10% per year. This latter amount represents a fair value of \$55.

On October 6, 2000, with the objective of financing part of the expansion in its alumina production capacity from 1.5 million tons to 2.3 million tons per year, ALUNORTE called a capital increase of \$126, to be paid up in 6 installments. Up to December 31,2000, three of these installments have been made and ALUVALE contributed with \$25, changing its stockholding interest to 48.58%.

During 1999 our 50%-owned affiliate VUPSA incurred significant losses, of which we recognized our portion of \$56 through the provision for losses on equity investments. In December 1999 we acquired the remaining 50% of VUPSA in exchange for the transfer of amounts owed to the seller from subsidiaries of VUPSA amounting to \$126, resulting in negative goodwill of \$86. At December 31, 1999 the balance sheet of VUPSA has been consolidated and the negative goodwill used to reduce the carrying value of VUPSA's property, plant and equipment.

In 2000, we acquired a further 34.41% of Ferrovia Centro-Atlântica S.A., for \$25, bringing our participation to 45.65%.

Dividends received from investees aggregated \$132, \$133 and \$64 in 2001, 2000 and 1999, respectively.

#### 11 Short-term debt

Our short-term borrowings are principally from commercial banks and include import and export financing denominated in United States dollars, as follows:

<u>-</u>	As of	December 31
_	2001	2000
Exp o rt	498	386
Imp o rt	1	11
Working Capital	90	68
	589	465

Average annual interest rates on short-term borrowings were 4.96% and 8.18% in 2001 and 2000, respectively.

## 12 Long-term debt

Long-term debt				
	Current	liabilities	As of Dec	ember 31
Foreign debt	2001	2000	2001	2000
Loans and financing contracted in the following curr	encies.			
maturing up to 2011:	cheres,			
United States dollars	192	170	1,104	990
Japanese Yen		10	27	4
Others		2	2	4
Fixed Rate Notes - US\$ denominated		-	500	500
Export Securitization - US\$ denominated		_	300	300
Perpetual notes		_	55	55
Accrued charges		41	-	-
	227	223	1,988	1,853
				1,033
Local debt				
Indexed by Long-Term Interest Rate - TJLP				
maturing up to 2002	28	6	9	40
Indexed by General Price Index-Market (IGPM)				
maturing up to 2005		21	31	49
Basket of currencies		15	39	51
Capital Lease		1		-
Shareholders revenue interests (Note 3)		-	3	3
Indexed by U.S. dollars		11	100	24
Accrued charges	1	3		-
	69	57	182	167
Total	296	280	2,170	2,020
The long-term portion at December 31, 2001 becomes 2003				662 725
2005				255
2006				151
2007				225
2008 and thereafter				97
No due date (Perpetual notes)				55
				2,170
At December 31, 2001 annual interest rates on long-ter	m debt were a	as follows:		,
Up to 7%				1,309
7.1% to 9%				495
9.1% to 11%				509
Over 11%				89
Variable (Perpetual notes)			······ <u> </u>	64
				2,466

The indexes applied to debt and respective percentage variations in each year were as follows:

	2001	2000	1999
TJLP - Long-Term			
Interest Rate (effective rate)	3.34	4.56	6.92
IGP-M - General Price Index - Market	10.40	9.95	20.10
United States Dollar	18.70	9.30	48.01

Long-term debt at December 31, 2001 is guaranteed or secured as follows:

	Amount of debt
	guaranteed
Federal Government guarantee (for which we have provided counter-guarantees)	308
Third party guarantees	150
Export receivables (securitization)	125
Ships	50

In October 2000 we issued \$300 under a US dollar - denominated export securitization program, divided into three tranches as follows:

	Amount	Tenor (years)	Grace Period (years)	Effective rate p.a.
Tranche 1	25	7	2	8.682%
Tranche 2	125	7	2	Libor+0.65%
Tranche 3	150	10	3	8.926%
	300			

Tranche 2 is guaranteed by an insurance contract with a major U.S. insurance company.

On March 8, 2002 our wholly-owned subsidiary, Vale Overseas Limited, issued \$300 of 8.625% Enhanced Guaranteed Notes due March 8, 2007, unconditionally guaranteed by us.

### 13 Stockholders' equity

Each holder of common and preferred class A stock is entitled to one vote for each share on all matters that come before a stockholders' meeting, except for the election of the Board of Directors, which is restricted to the holders of common stock. As described in Note 3, the Brazilian Government holds a preferred special share which confers on it permanent veto rights over certain matters.

The Board of Directors authorized the acquisition of up to 9,832,691 of our own preferred class A shares, to remain in treasury for subsequent disposal or cancellation. As of December 31, 2001, 3,519,288 shares had been acquired, at an average weighted unit cost of R\$20.03 (minimum cost of R\$14.02 and maximum of R\$24.19).

Both common and preferred stockholders are entitled to receive a dividend of at least 25% of annual net income, upon approval at the annual stockholders' meeting. In the case of preferred stockholders, this dividend cannot be less than 6% of the preferred capital as stated in the statutory accounting records. With respect to each of 2001, 2000 and 1999 we distributed dividends to preferred stockholders in excess of this limit. Interest attributed to stockholders as from January 1, 1996 is considered part of the minimum dividend.

Brazilian law permits the payment of cash dividends only from retained earnings as stated in the

Amount of dobt

statutory accounting records and such payments are made in Reais. At December 31, 2001, we had no undistributed retained earnings. In addition, appropriated retained earnings at December 31, 2001 includes \$2,215, related to the unrealized income and expansion reserves, which could be freely transferred to retained earnings and paid as dividends, if approved by the stockholders.

No withholding tax is payable on distribution of profits earned as from January 1, 1996, except for distributions in the form of interest attributed to stockholders as explained in Note 2 (m).

Brazilian laws and our By-laws require that certain appropriations be made from retained earnings to reserve accounts on an annual basis, all determined in accordance with amounts stated in the statutory accounting records, as detailed below:

	Year ended December 31		
	2001	2000	1999
Appropriated retained earnings			
Unrealized income reserve			
Balance January 1	874	1,062	1,636
Transfer to retained earnings	(326)	(188)	(574)
Balance December 31	548	874	1,062
Expansion reserve			
Balance January 1	1,546	1,367	1,685
Transfer to capital stock	(278)	-	-
Transfer to retained earnings	399	179	(318)
Balance December 31	1,667	1,546	1,367
Legal reserve			
Balance January 1	307	284	368
Transfer to retained earnings	18	23	(84)
Balance December 31	325	307	284
Fiscal incentive depletion reserve			
Balance January 1	771	842	1,246
Transfer to retained earnings	(122)	(71)	(404)
Balance December 31	649	771	842
Fiscal incentive investment reserve			
Balance January 1	39	12	277
Transfer to capital stock	(33)	-	(187)
Trans fer (to) from retained earnings	17	27	(78)
Balance December 31	23	39	12
Total appropriated retained earnings	3,212	3,537	3,567

The purpose and basis of appropriation to such reserves is described below:

- . Unrealized income reserve this represents principally our share of the earnings of affiliates and joint ventures, not yet received in the form of cash dividends.
- . Expansion reserve this is a general reserve for expansion of our activities.
- . Legal reserve this reserve is a requirement for all Brazilian corporations and represents the appropriation of 5% of annual net income under Brazilian GAAP up to a limit of 20% of capital stock under Brazilian GAAP.
- . Fiscal incentive depletion reserve this represents an additional amount relative to mineral reserve depletion equivalent to 20% of the sales price of mining production, which is deductible for tax purposes providing an equivalent amount is transferred from retained earnings to the reserve account. This fiscal incentive expired in 1996.
- . Fiscal incentive investment reserve this reserve results from an option to designate a portion of

income tax otherwise payable for investment in government approved projects and is recorded in the year following that in which the taxable income was earned. As from 2000, this reserve also contemplates the tax incentives described in Note 5.

#### 14 Pension plans

Since 1973 we have sponsored a defined benefit pension plan (the "Old Plan") covering substantially all employees, with benefits based on years of service, salary and social security benefits. This plan is administered by Fundação Vale do Rio Doce de Seguridade Social – VALIA and was funded by monthly contributions made by us and our employees, calculated based on periodic actuarial appraisals.

In May 2000, we implemented a new pension plan, which is primarily a defined contribution plan with a defined benefit feature relative to service prior to May 2000 (the "New Plan"), and offered our active employees the opportunity of transferring to the New Plan. Over 98% of our active employees opted to transfer to the New Plan. The Old Plan will continue in existence, covering almost exclusively retired participants and their beneficiaries.

The following information details the status of the defined benefit elements of our plans in accordance with SFAS 132 "Employers' Disclosure about Pensions and Other Post-retirement Benefits":

#### (a) Change in benefit obligation

	As of December 3	
	2001	2000
Benefit obligation at beginning of year	1,596	1,440
Service cost	2	10
Interest cost	78	91
Benefits paid	(88)	(109)
Plan amendments	-	(13)
Effect of exchange rate changes	(252)	(65)
Actuarial loss	52	242
Benefit obligation at end of year	1,388	1,596

The actuarial loss of \$ 242 in the year ended December 31, 2000 is mainly due to the adoption of a new mortality table which is considered to better reflect the current life expectancy of the plan participants.

#### (b) Change in plan assets

	As of December 3	
<u> </u>	2001	2000
Fair value of plan assets at beginning of year	1,189	1,231
Actual return on plan assets	220	128
Special employer contributions (Note 4 (i))	249	-
Employer contributions	17	34
Employee contributions	-	5
Benefits paid	(88)	(109)
Effect of exchange rate changes	(213)	(100)
Fair value of plan assets at end of year	1,374	1,189

Plan assets at December 31, 2001 include \$83 of portfolio investments in our own shares (\$95 at December 31, 2000) and \$12 of shares of related parties (\$9 at December 31, 2000), as well as \$551 of Federal Government Securities (\$480 at December 31, 2000).

#### (c) Accrued pension cost liability

	As of December 3	
	2001	2000
Funded status, excess of benefit obligation over plan assets	14	407
Unrecognized net transitory obligation	(94)	(125)
Unrecognized net actuarial loss	(19)	(152)
Accrued pension cost liability (prepaid pension cost)	(99)	130

#### (d) Recognition of additional minimum liability

_	As of December 31	
<u> </u>	2001	2000
Accrued pension cost liability	-	130
Unrecognized pension obligation, limited to		
unrecognized net transitory obligation	14	125
Additional amount recognized in stockholders' equity	-	151
Minimum liability	14	406

#### (e) Assumptions used in each period (expressed in nominal terms)

	2001	2000
Discount rate	11% p.a.	11% p.a.
Expected return on plan assets	11% p.a.	11% p.a.
Rate of compensation increase	6.82% p.a.	6.82% p.a.

Net pension cost includes the following components:

<u> </u>	Year ended December 31		
_	2001	2000	1999
Service cost - benefits earned during the period	2	10	31
Interest cost on projected benefit obligation	78	91	126
Actual return on assets	(220)	(128)	(345)
Amortization of initial transitory obligation	12	15	17
Net deferral	160	58	241
_	32	46	70
Employee contributions	-	(5)	(15)
Net periodic pension cost	32	41	55

In addition to benefits provided under our pension plan accruals have been made relative to supplementary benefits extended in previous periods as part of early-retirement programs. Such accruals included in long-term liabilities totaled \$173 and \$185, at December 31, 2001 and 2000, respectively, plus \$28 and \$30 in current liabilities.

The cost recognized in the years 2001 and 2000 relative to the defined contribution element of the New Plan was \$5 and \$3, respectively.

#### 15 Commitments and contingencies

- (a) At December 31, 2001, we had extended guarantees for borrowings obtained by affiliates and joint ventures in the amount of \$702, of which \$492 is denominated in United States dollars and the remaining \$210 in local currency. These guarantees include \$317 relative to ALBRAS and \$51 relative to ALUNORTE (see Note 10).
- (b) CVRD and its subsidiaries are defendants in numerous legal actions in the normal course of business. Based on the advice of our legal counsel, management believes that the provision made against contingent losses is sufficient to cover probable losses in connection with such actions.

The provision for contingencies and the related judicial deposits are composed as follows:

			As of D	ecember 31
		2001		2000
	Provision for contingencies	Judicial deposits	Provision for contingencies	Judicial deposits
Labor claims	147	50	114	60
Civil claims	123	53	137	58
Tax - related actions	177	131	80	54
Others	5	1		1
	452	235	338	173
Long-term	452	235	338	173

Labor –related actions principally comprise employee claims for (i) payment of time spent travelling from their residences to the work-place, (ii) additional payments for alleged dangerous or unhealthy working conditions and (iii) various other matters, often in connection with disputes about the amount of indemnities paid upon dismissal.

Civil actions principally relate to claims made against us by contractors in connection with losses alleged to have been incurred by them as a result of various past government economic plans during which full indexation of contracts for inflation was not permitted.

Tax-related actions principally comprise our challenges of changes in basis of calculation and rates of certain revenue taxes and of the tax on financial movements – CPMF.

We continue to vigorously pursue our interests in all the above actions but recognize that probably we will incur some losses in the final instance, for which we have made provisions.

Our judicial deposits are made as required by the courts for us to be able to enter or continue a legal action. When judgment is favorable to us, we receive the deposits back; when unfavorable, the deposits are delivered to the prevailing party.

Contingencies settled in the years December 31, 2001 and 2000 aggregated \$6 and \$36, respectively, and additional provisions aggregated \$79 and \$101 in these years, respectively.

- (c) We are defendants in two actions seeking substantial compensatory damages brought by the Municipality of Itabira, State of Minas Gerais, which we believe are without merit. Due to the remote likelihood that any loss will arise therefrom no provision has been made in the financial statements with respect to these two actions.
- (d) We are committed under a take-or-pay agreement to take delivery of approximately 175,950 metric tons per year of aluminum from ALBRAS at market prices. This estimate is based on 51% of ALBRAS expected production and, at a market price of \$1,453.66 per metric ton at December 31,

2001, represents an annual commitment of \$256. We are also committed to take-or-pay 437,214 metric tons per year of alumina produced by ALUNORTE which at a market price of \$176.08 per metric ton at December 31, 2001, represents an annual commitment of \$77. Actual take from ALBRAS was \$220, \$242 and \$222 in 2001, 2000 and 1999, respectively, and direct from ALUNORTE (net of take ceded to ALBRAS) was \$36, \$52 and \$30 in 2001, 2000 and 1999, respectively.

(e) We and BNDES entered into a contract, known as the Mineral Risk Contract, in March 1997, relating to prospecting authorizations for mining regions where drilling and exploration are still in their early stages. The Mineral Risk Contract provides for the joint development of certain unexplored mineral deposits in approximately two million identified hectares of land in the Carajás region, as well as proportional participation in any financial benefits earned from the development of such resources. Iron ore and manganese deposits already identified and subject to development are specifically excluded from the Mineral Risk Contract.

Pursuant to the Mineral Risk Contract, we and BNDES each agreed to provide \$205, which represents half of the \$410 in expenditures estimated as necessary to complete geological exploration and mineral resource development projects in the region over a period of five years. Under certain circumstances, this period may be extended for an additional two years. We oversee these projects and BNDES advances us half of our costs on a quarterly basis. Under the Mineral Risk Contract, as of December 31, 2001, each of us and BNDES had remaining commitments to contribute an additional \$89 toward exploration and development activities. We both expect to fund a portion of these contributions through the end of 2001. In the event that either of us wishes to conduct further exploration and development after having spent such \$205, the contract provides that each party may either choose to match the other party's contributions, or may choose to have its financial interest proportionally diluted. If a party's participation in the project is diluted to an amount lower than 40% of the amount invested in connection with exploration and development projects, then the Mineral Risk Contract provides that the diluted party will lose (1) all the rights and benefits provided for in the Mineral Risk Contract and (2) any amount previously contributed to the project.

Under the Mineral Risk Contract, BNDES has agreed to compensate us for our contribution of existing development and ownership rights in the Carajás region through a finder's fee production royalty on mineral resources that are discovered and placed into production. This finder's fee is equal to 3.5% of the revenues derived from the sale of gold, silver and platinum group metals and 1.5% of the revenues derived from the sale of other minerals, including copper, except for gold and other minerals discovered at Serra Leste, for which the finder's fee is equal to 6.5% of revenues.

(f) At the time of our privatization in 1997, we issued shareholder revenue interests known in Brazil as "debentures" to our then-existing shareholders, including the Brazilian Government. The terms of the "debentures", which are described below, were set to ensure that our pre-privatization shareholders, including the Brazilian Government, would participate alongside us in potential future financial benefits that we are able to derive from exploiting our mineral resources.

In preparation for the issuance of the debentures, we issued series B preferred shares on a one-for-one basis to all holders of our common shares and series A preferred shares. We then exchanged all of the series B shares for the debentures at par value. The debentures are not redeemable or convertible, and do not trade on a stapled basis or otherwise with our common or preferred shares. At present the debentures cannot be traded. Holders will be able to trade the debentures only after a three-month period that will commence upon completion of the sale by the Brazilian Government of its 32% stake in our common shares, which occurred on March 27, 2002 (see Note 3). We will be required to register the debentures with the CVM in order to permit trading at this time.

Under Brazilian Central Bank regulations, pre-privatization shareholders that held their shares through our preferred share American Depositary Receipt, or ADR, program were not permitted to receive the debentures or any financial benefits relating to the debentures. We sought approval from the Central Bank to distribute the debentures to the ADR holders, but the Central Bank rejected our request. We intend to renew our request to the Central Bank, but we cannot be sure that we will succeed. If the Central Bank does not approve our request, the ADR depositary will not be able to distribute the debentures to the ADR holders and will not be able to sell the debentures. Therefore, unless the Central Bank approves our request, the debentures will not have any value for ADR holders.

Under the terms of the debentures, holders will have the right to receive semi-annual payments equal to an agreed percentage of our net revenues (revenues less value added tax) from certain identified mineral resources that we owned as of May 1997, to the extent that we exceed defined threshold production volumes of these resources, and from the sale of mineral rights that we owned as of May 1997. Our obligation to make payments to the holders will cease when the relevant mineral resources are exhausted. Based on current production levels, and estimates for new projects the for cast is to start payments referring to cooper resource in 2004 we would related to iron ore resources in approximately 2012, and payments related to other mineral resources in later years.

The table below summarizes the amounts we will be required to pay under the debentures based on the net revenues we earn from the identified mineral resources and the sale of mineral rights.

Area	Mineral	Required Payments by CVRD
Southern System	Iron ore	1.8% of net revenue, after total production from May 1997 exceeds 1.7 billion tons.
Northern System	Iron ore	1.8% of net revenue, after total production from May 1997 exceeds 1.2 billion tons.
Pojuca, Andorinhas, Liberdade and Sossego	Gold and copper	2.5% of net revenue from the beginning of commercial production.
Igarapé Bahia and Alemão	Gold and copper	2.5% of net revenue, after total production from the beginning of commercial production exceeds 70 tons of gold.
Fazenda Brasileiro	Gold	2.5% of net revenue after total production from the beginning of commercial production exceeds 26 tons.
Other areas, excluding Carajás/ Serra Leste	Gold	2.5% of net revenue.
Other areas owned as of May 1997	Other minerals	1% of net revenue, 4 years after the beginning of commercial production.
All areas	Sale of mineral rights owned as of May 1997	1% of the sales price.

(g) At December 31, 2001 we have provided \$29 for environmental liabilities. Such provisions relate to site restoration at mines already closed or which are expected to be closed in the next two years.

We use various judgments and assumptions when measuring our environmental liabilities. Changes in circumstances, law or technology may affect our estimates and we periodically review the amounts accrued and adjust them as necessary. Our accruals do not reflect unasserted claims because we are currently not aware of any such issues. Also the amounts provided are not reduced by any potential recoveries under cost sharing, insurance or indemnification arrangements because such recoveries are considered uncertain .

## 16 Segment and geographical information

In 1999 we adopted SFAS 131 "Disclosures about Segments of an Enterprise and Related Information" with respect to the information we present about our operating segments. SFAS 131 introduced a "management approach" concept for reporting segment information, whereby financial information is required to be reported on the basis that the top decision-maker uses such information internally for evaluating segment performance and deciding how to allocate resources to segments. Our business segments are currently organized as follows:

Ferrous products - comprises iron ore mining and pellet production, as well as the Northern and Southern transportation systems, including railroads, ports and terminals, as they pertain to mining operations. Manganese mining and ferrous alloys are also classified in this segment.

Non-ferrous products – comprises the production of gold and other non-ferrous minerals.

Logistics – comprises our transportation systems as they pertain to external commercial operations, and the operations of our ships.

Holdings – divided into the following sub-groups:

- Pulp and paper comprises our forestation activities and investments in joint ventures and affiliates engaged in the manufacture of pulp and paper products.
- Aluminum comprises aluminum trading activities and investments in joint ventures and affiliates engaged in bauxite mining, alumina refining and aluminum metal smelting.
- Steel comprises our investments in joint ventures and affiliates operating in the steel industry.
- Others comprises our investments in joint ventures and affiliates engaged in other businesses.

Corporate Center - the Corporate Center is responsible for accounting and control, finance, legal matters, human resources and administration, investor and external relations and internal auditing.

Information presented to top management with respect to the performance of each segment is generally derived directly from the accounting records maintained in accordance with Brazilian corporate law together with certain minor inter-segment allocations, and is focused primarily on return on capital employed (ROCE), net operating profit less taxes (NOPLT) as well as net income.

In 2000 we transferred various accounting, control, legal and information technology functions from the operating divisions to our Corporate Center. We estimate that this transfer increased the costs in our Corporate Center by approximately \$8, and reduced the costs of our ferrous, non ferrous and logistics segments by \$6, \$1 and \$1, respectively.

Consolidated net income and principal assets are reconciled as follows (certain minor reclassifications have been made to the 2000 and 1999 information to be comparable with that for 2001):

Consolidated net income and principal assets are reconciled as follows:

_										2001
						]	Holdings	-		
		Non		Pulpand	l			Corporate		
-	Ferrous	ferrous	Logistics	paper	Aluminum	Steel	Others	Center	Himinations	Consolidated
RESULTS	2 ==0									2040
Revenues - Export	3,559	173	147	47	282	-	-	-	(1,359)	2,849
Revenues - Domestic	1,082	79	344	(1) ==	1	- (	- 2)	-	(231)	1,283
Cost and expenses	(3,218)	(197)	(122)	(1) 628		120 (	3) _	(759)	1,541	(2,566)
Interest revenue	169	1	11	3	7	3	-	-	(59)	135
Interest expense	(368)	(10)	(11)	-	(1)	(4)	-	-	59	(335)
Depreciation	(167)	(17)	(26)	(2)	-	-	-	-	-	(212)
Pension plan	(27)	(3)	(2)	-	-	-	-	-	-	(32)
Equity and provision for losses	(1)	1	(114)	11	41	5	4	-	-	(53)
Income taxes	1	-	(3)	-	1	-	-	219	-	218
Net income	1,030	27	(76)	695	72	124	4	(540)	(49)	1,287
Sales classified by geographic destination:  Export market  Latin America  United States  Burope	238 247 1,469	- 139 33	65 21 44	- 47	9 73 173	-	-	-	(118) (112) (490)	194 415 1 <i>22</i> 9
Middle East	216	33	4	-	1/3	-	-	-	(20)	200
Japan	525	_	10	_	12	_	_		(245)	302
Asia, other than Japan	864	1	3	_	15	_	_	_	(374)	509
r sia, outer than superin	3,559	173	147	47	282				(1,359)	2,849
Donestic market	1,082	79	344	8	1	_	_	_	(231)	1,283
	4,641	252	491	55	283		-		(1,590)	4,132
Assets:										
Property, plant and equipment, net	3,146	240	305	90	-	_	7	25	-	3,813
Capital expenditures	506	40	25	22	_	-	-	2	-	595
Investments in affiliated companies and joint ventures										
and other investments, net provision for losses	673	29	34	-	287	159	36			1,218
Capital enployed	2,980	249	313	50	18	13	7	(4)	4	3,630
NOPLT	1,356	56	149	2	25	14	-	(82)	(49)	1,471
ROCE	46%	22%	48%	4%	139%	108%	-	-	-	41%

 $<sup>(1) \</sup>hbox{--Includes provisions $101 to reflect realizable value of assets} \\$ 

 $<sup>(2) -</sup> Includes \$170 \ profit \ on \ sale \ of \ Bahia \ Sul \ Celulose \ S.A. - BSC \ and \$507 \ profit \ on \ sale \ of \ Celulose \ Npo-Brasileira \ S.A. - CENBRA$ 

<sup>(3) -</sup> Includes \$107 profit on sale of Companhia Sidenírgica Nacional - CSN

·										
						:	Holdings			
		Non		Pulpand				Corporate		
	Ferrous	ferrous	Logistics	paper	Aluminum	Steel	Others	Center	Himinations	Consolidated
RESULTS										
Revenues - Export		198	195	121	351	-	-	-	(1,068)	2,646
Revenues - Domestic		90	403	21	12	1	-	-	(104)	1,423
Cost and expenses		(214)	(418)	(156)	(261)	(10)	-	(578)	· · · · · · ·	(3,026)
Interest revenue	52	1	1	7	25	5	-	173	(56)	208
Interest expense	2.7	(12)	(6)	-	(2)	(6)	-	(247)		(315)
Depreciation	(115)		(22)	(22)	-	-	-	(6)	-	(195)
Pension plan	(7)	(2)	-	-	-	-	-	-	-	(9)
Equity and provision for losses	46	-	(22)	108	126	59	5	-	-	322
Income taxes	8	-	5	(7)	(5)	(48)	-	79	-	32
Net income	1,174	31	136	72	246	1	5	(579)	-	1,086
Latin America. United States.  Europe Middle East Japan Asia, other than Japan  Domestic market	651 <b>2,849</b>	156 35 - 4 3 198 90	30 64 75 6 15 5 <b>195</b> 403	73 48 - - - - - - - 21	23 39 237 16 34 2 351	- - - - - - 1	- - - - - -	- - - - -	(91) (108) (222) (19) (308) (320) (1,068) (104)	476 1,142
	3,849	288	598	142	363	1		-	(1,172)	4,069
Assets:										
Property, plant and equipment, net	3,077	325	374	149	-	-	-	30	-	3,955
Capital expenditures	373	50	14	-	-	-	-	10	-	447
Investments in affiliated companies and joint ventures										
and other investments, net provision for losses	519	31	151	372	262	423	37	-	-	1,795
Capital employed	3,064	316	390	135	(10)	1	14	(6)	8	3,912
NOPLT	1,155	52	165	(44)	23	(54)	-	(63)	16	1,250
ROCE	38%	16%	42%	(33%)	_	_	_	_	_	32%

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							Holdings			
			-	Pulp	1					
		Non		and				Corporate		
	Ferrous	ferrous	Logistics	paper	Aluminum	Steel	Others	Center	Eliminations	Consolidated
RESULTS										
Revenues - Export	1,989	143	100	101	318	-	-	-	(578)	2,073
Revenues - Domestic	. 639	96	318	10	62	-	-	-	(41)	1,084
Cost and expenses	(1,435)	(151)	(396)	(103)	(367)	-	-	(428)	619	(2,261)
Interest revenue	. 46	-	8	4	9	-	-	170	(37)	200
Interest expense	. (50)	-	(13)	-	(6)	-	-	(201)	37	(233)
Depreciation	(120)	(16)	(21)	(6)	-	-	-	-	-	(163)
Pension plan	2.7	(4)	(3)	-	-	-	-	-	-	(28)
Equity and provision for losses	. (44)	(15)	(9)	9	(182)	7	-	7	-	(227)
Income taxes	-	-	14	(5)	-	-	-	(42)	-	(33)
Net income	1,004	53	(2)	10	(166)	7	-	(494)		412
Export market Latin America United States Europe Middle East Japan Asia, other than Japan Others	. 147 621 146 351 575 	139 - - - 4 - 143	13 34 31 3 9 9 1	62 39 - - - - 101	5 23 146 - 94 50	- - - - - -	- - - - - -	- - - - - -	(60) (71) (110) (13) (83) (241)	107 334 727 136 371 397 1 2,073
Donestic market	. 639	96	318	10	62	-			(41)	1,084
	2,628	239	418	111	380				(619)	3,157
Assets:										
Property, plant and equipment, net		400 56	404 4	158	-	-	-	31 4	-	3,943 265
Investments in affiliated companies and joint ventures and other investments, net provision for losses	116	33	68	318	208	426	34	_	_	1203
						120	<i></i>			
Capital employed		399	419	148	9	-	-	(9)	-	4,047
NOPLT	1,055	68	28	6	28	-	-	(309)	11	887
ROCE	. 34%	17%	7%	4%	311%	-	-	_	-	22%

#### 17 Related party transactions

Transactions with major related parties (including agencies of the Brazilian Federal Government) resulted in the following balances:

	As of December							
		2001		2000				
	Assets	Liabilities	Assets	Liabilities				
AFFILIATED COMPANIES AND JOINT VENTURES								
ALUNORTE (1)	321	76	332	45				
CENIBRA(2)	-	-	126	41				
Salobo Metais S.A. (3)	70	-	76	-				
FCA	154	2	151	18				
HISPANOBRAS	21	28	21	23				
ITABRASCO	18	17	17	22				
NIBRASCO	20	5	29	38				
KOBRASCO	35	25	34	7				
Wilsea Shipping Inc	-	-	-	34				
USIMINAS	23	-	24	-				
ALBRAS	1	15	1	24				
URUCUM	-	-	8	1				
Others	154	106	133	85				
EMPLOYEE FUNDS								
Fundação Vale do Rio Doce	-	-	-	1				
VALIA	-	1	-	40				
BRAZILIAN FEDERAL GOVERNMENT								
Banco do Brasil S.A (4)	83	-	85	3				
Rede Ferroviária Federal S.A	11	32	13	39				
BNDES	6	163	7	158				
	917	470	1,057	579				
Current	350	293	337	378				
Long-term	567	177	720	201				

- (1) Includes onlending outstanding balance of \$192 (2000 \$204), with identical conditions and terms, of a \$200 U.S. dollar denominated loan obtained by us from the Nippon Amazon Aluminium Company (NAAC) in January 1997 (bearing interest of 6.41% p.a. and maturing up to 2011).
- (2) Includes onlending outstanding balance of \$94 (2000 \$117), with identical conditions and terms, of a \$200 U.S. dollar denominated loan obtained by us from the Japanese Eximbank in 1996, bearing interest of 6.21% p.a. and maturing up to 2004.
- (3) Convertible debentures bearing interest of IGPM plus 6.50% p.a., maturing up to 2002.
- (4) Represents interest bearing deposits and investment funds.

These balances are included in the following balance sheet classifications:

			As of	December 31
<u> </u>		2001		2000
	Assets	Liabilities	Assets	Liabilities
Current assets				
Cash and cash equivalents	83	-	85	-
Accounts receivable	106	-	125	-
Loans and advances to related parties	160	-	121	-
Others	1	-	6	-
Other assets				
Loans and advances to related parties	555	-	704	-
Others	12	-	16	-
Current liabilities				
Suppliers	-	101	-	179
Current portion of long-term debt	-	22	-	30
Loans from related parties	-	168	_	152
Others	-	2	-	17
Long-term liabilities				
Long-term debt	-	156	-	128
Loans from related parties	-	-	-	21
Others		21	<u> </u>	52
	917	470	1,057	579

The principal amounts of business and financial operations carried out with major related parties are as follows:

_	Year ended December						
_	2001			2000		1999	
_	Income	Expense	Income	Expense	Income	Expense	
AFFILIATED COMPANIES AND JOINT VENTURES							
CST	146	-	166	-	135	-	
NIBRASCO	135	132	172	205	44	58	
ALUNORTE	84	38	42	93	167	28	
SIDERAR	30	-	18	-	30	-	
ITABRASCO	67	33	66	24	57	23	
HISPANOBRAS	74	74	75	77	26	50	
KOBRASCO	75	63	76	18	62	67	
CENIBRA	30	46	33	123	78	99	
USIMINAS	59	-	47	-	18	-	
AÇOMINAS	4	-	7	-	8	-	
ALBRAS	5	208	6	216	14	205	
VALESUL	-	-	4	-	-	24	
MRN	-	17	1	17	-	20	
Others	95	142	82	75	80	59	
BRAZILIAN FEDERAL GOVERNMENT							
Banco do Brasil S.A	27	-	46	24	46	14	
Petróleo Brasileiro S.A PETROBRAS	2	18	6	11	1	17	
Centrais Elétricas Brasileiras S.A	1	-	-	-	-	-	
BNDES	1	19	1	18	1	12	
	835	790	848	901	767	676	

These amounts are included in the following statement of income classifications:

_	Year ended December 31								
_	2001		2000			1999			
<u>-</u>	Income	Expense	Income	Expense	Income	Expense			
Sales of iron ore and pellets	518	349	494	313	288	175			
Revenues from transportation services	85	-	133	-	89	-			
Cost of aluminum products	-	254	-	327	-	271			
Financial income/expenses	180	59	117	79	101	59			
Others	52	128	104	182	289	171			
_	835	790	848	901	767	676			

#### 18 Fair value of financial instruments

The carrying amount of our current financial instruments generally approximates fair market value because of the short-term maturity or frequent repricing of these instruments.

The market value of long-term investments, where available, is disclosed in Note 10 to these financial statements.

Based on borrowing rates currently available to us for bank loans with similar terms and average maturities, the fair market value of long-term debt at December 31, 2001 is estimated as follows:

<u>-</u>	As of Dec	ember 31
_	2001	2000
Fair market value	2,102	2,022
Carrying value	2,170	2,020

Fair market value estimates are made at a specific point in time, based on relevant market information and information about the financial instruments. Changes in assumptions could significantly affect the estimates.

#### 19 Derivative financial instruments

Volatility of interest rates, exchange rates and commodity prices are the main market risks to which we are exposed - all three are managed through derivative operations. These have the exclusive aim of reducing exposure to risk. We do not use derivatives for speculation purposes.

We monitor and evaluate our derivative positions on a regular basis and adjust our strategy in response to market conditions. We also periodically review the credit limits and credit worthiness of our counter-parties in these transactions. In view of the policies and practices established for operations with derivatives, management considers the occurrence of non-measurable risk situations as unlikely.

As from January 1, 2001 we adopted SFAS 133 "Accounting for Derivative Financial Instruments and Hedging Activities", as amended by SFAS 137 and SFAS 138, and began to recognize all derivatives on our balance sheet at fair value. Accordingly we recognized an initial transition adjustment of \$12 as a charge in our statement of income relative to net unrealized losses on contracts open as of December 31, 2000. Subsequently to January 1, 2001 all derivatives have been adjusted to fair market value at each balance sheet date and the change included in current earnings.

For the year ended December 31, 2001 the movement of unrealized and realized gains or losses on derivative financial instruments is as follows:

<del>-</del>	Net Gains (losses						
_	Gold	Interest rates (libor)	Currencies	Total			
Initial unrealized gains and losses at January 1, 2001	9	(8)	(4)	(3)			
Change in the period	2	(36)	(4)	(38)			
(Gains) and losses realized in the period	(4)	8	4	8			
Unrealized gains and (losses) at December 31, 2001	7	(36)	(4)	(33)			

Realized and unrealized gains and losses are included in our income statement under the following captions:

Gold – other operating costs and expenses; Interest rates – financial expenses;

Currencies – foreign exchange and monetary losses, net.

Final maturity dates for the above instruments are as follows:

Gold	December 2005
Interest rates (libor)	October 2007
Currencies	April 2005

#### (a) Interest Rate and Exchange Rate Risk

Interest rate risks mainly relate to that part of the debt borrowed at floating rates. The foreign currency debt is largely subject to fluctuations in the London Interbank Offered Rate - LIBOR. That portion of local currency denominated debt that is subject to floating rates is linked to the Long Term Interest Rate - TJLP, fixed quarterly by the Brazilian Central Bank. Since May 1998, we have used derivative instruments to protect overselves against fluctuations in the LIBOR rate.

There is an exchange rate risk associated with our foreign currency denominated debt. On the other hand, a substantial proportion of our revenues are denominated in, or automatically indexed to, the U.S. dollar, while the majority of costs are expressed in reais. This provides a natural hedge against any devaluation of the Brazilian real against the U.S. dollar. When events of this nature occur, the immediate negative impact on foreign currency denominated debt is offset over time by the positive effect of devaluation on future cash flows.

With the advent of a floating exchange rate regime in Brazil in January 1999, we adopted a strategy of monitoring market fluctuations, using derivatives to protect against specific risks from exchange rate variation.

From time to time we enter into foreign exchange derivative swap transactions seeking to change the characteristics of our real-denominated cash investments to US dollar-indexed instruments. The extent of such transactions depends on our perception of market and currency risk, but is never speculative in nature. All such operations are marked-to-market at each balance sheet date and the effect included in financial income or expense. During the years December 31, 2001 our use of such instruments was not significant.

#### (b) Commodity Price Risk

We also use derivative instruments to manage exposure to changing gold prices. Derivatives allow the fixing of an average minimum profit level for future gold production. However, they may also have the effect of eliminating potential gains on certain price increases in the spot market for gold. We manage

our contract positions actively, and the results are reviewed at least monthly, allowing adjustments to targets and strategy to be made in response to changing market conditions.

In the case of gold derivatives, our policy has been to settle all contracts through cash payments or receipts, without physical delivery of product.

Our affiliates Albras and Alunorte manage the risk of fluctuating aluminum prices using derivatives, allowing an average minimum profit level for future production and ensuring stable cash generation. However, they may also have the effect of eliminating potential gains on certain price increases in the spot market for aluminum. We account for both affiliates using the equity method.

In December 2000, we introduced a new risk management system to evaluate, measure and manage the market risk associated with our financial activities, using the value-at-risk - VAR method. VAR incorporates a variety of risk factors which affect our results, including commodity prices, interest and exchange rate volatilities, as well as the correlation between all these variables. This tool will permit more efficient monitoring of market risk exposure.

#### 20 Information about independent accountants

Our consolidated financial statements are audited by PricewaterhouseCoopers Auditores Independentes. The financial statements of certain of our subsidiaries and affiliates have been audited by independent accountants other than PricewaterhouseCoopers Auditores Independentes and, as mentioned in their report, PricewaterhouseCoopers Auditores Independentes has relied on such audits when expressing their opinion on our consolidated financial statements.

The following entities prepare financial statements in US GAAP which are audited in accordance with auditing standards generally accept in the United States of America:

_	Auditors	Years Audited	City	State	Country
Alumínio Brasileiro S.A ALBRAS	DTT	2001, 2000, 1999	RJ	RJ	Brazil
Alumina do Norte do Brasil S.A ALUNORTE	DTT	2001, 2000, 1999	RJ	RJ	Brazil
Vale do Rio Doce Alumínio S.A ALUVALE	DTT	2001, 2000, 1999	RJ	RJ	Brazil
Bahia Sul Celulose S.A. (4)	KPMG	2001, 2000, 1999	SP Orange	SP	Brazil
California Steel Industries, Inc.	KPMG LLP	2001, 2000, 1999	County	CA	USA
Celulose Nipo-Brasileira S.A CENIBRA (1) (4)	DTT	2001, 2000, 1999	BH	MG	Brazil
Navegação Vale do Rio Doce S.A DOCENA VE	DTT	2001, 2000, 1999	RJ	RJ	Brazil
DOCEPAR S.A. (1)	DTT	2001, 2000, 1999	RJ	RJ	Brazil
Companhia Hispano-Brasileira de Pelotização - HISPANOBRAS	AA	2001, 2000, 1999	Vitória	ES	Brazil
Companhia Ítalo-Bras ileira de Pelotização - ITABRASCO	AA	2001, 2000, 1999	Vitória	ES	Brazil
Companhia Coreano Brasileira de Pelotização - KOBRASCO (2)	DTT	2001, 2000	RJ	RJ	Brazil
Mineração Rio do Norte S.A.	AA	2001, 2000, 1999	RJ	RJ	Brazil
Companhia Nipo-Brasileira de Pelotização - NIBRASCO	DTT	2001, 2000, 1999	RJ	RJ	Brazil
Valesul Alumínio S.A.	KPMG	2001, 2000, 1999	RJ	RJ	Brazil
Companhia Siderúrgica Nacional (1) (4)	AA	2000, 1999	RJ	RJ	Brazil

In addition to the above the following entities prepare financial statements in Brazilian GAAP which are audited in accordance with auditing standards generally accepted in Brazil. PricewaterhouseCoopers Auditores Independentes relies on such audits but is responsible for reviewing the US GAAP translation and, if applicable, US GAAP adjustments.

_	Auditors	Years Audited	City	State	Country
Terminal Vila Velha S.A.	DTT	2001, 2000, 1999	RJ	RJ	Brazil
Nova Era Silicon S.A.	DTT	2001, 2000	BH	MG	Brazil
Nova Era Silicon S.A.	Trevisan	1999	BH	MG	Brazil
Celmar S.A Indústria de Celulose e Papel (2)	DTT	2001, 2000	RJ	RJ	Brazil
SIBRA Eletrosiderúrgica Brasileira S.A. (3)	DTT	2001, 2000	Salvador	BA	Brazil

AA - Arthur Andersen S/C

DTT - Deloitte Touche Tohmatsu

RJ - Rio de Janeiro

MG - Minas Gerais

BH - Belo Horizonte

SP - São Paulo

ES - Espírito Santo

BA - Bahia

- (1) Audited by Pricewaterhouse Coopers in 1998.
- (2) Audited by Pricewaterhouse Coopers in 1999 and 1998.
- (3) Consolidated as from 2000.
- (4) Investment sold in 2001.

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#### **Report of Independent Accountants**

To the Board of Directors and Stockholders Vale Overseas Limited

In our opinion, the accompanying balance sheet presents fairly, in all material respects, the financial position of Vale Overseas Limited at December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. This balance sheet is the responsibility of the Company's management; our responsibility is to express an opinion on this balance sheet based on our audit. We conducted our audit of this statement in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the balance sheet is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the balance sheet, assessing the accounting principles used and significant estimates made by management, and evaluating the overall balance sheet presentation. We believe that our audit of the balance sheet provides a reasonable basis for our opinion.

March 26, 2002

PricewaterhouseCoopers Auditores Independentes

## **Vale Overseas Limited**

## **Balance sheet at December 31**

## **Expressed in thousands of U.S. dollars**

Assets	 2001
Current assets	
Cash and cash equivalent	1,000
	 1,000
Liabilities	
Stockholders' equity Common stock (1,000 common shares	
of a par value of US\$1.00 each)	 1,000
	 1,000

The accompanying notes are an integral part of these financial statements.

## **Vale Overseas Limited**

# Notes to the Balance Sheet at December 31, 2001

#### 1 Operations

Vale Overseas Limited (the "Company"), located in the Cayman Islands, was constituted in April, 2001 as a wholly-owned subsidiary of Companhia Vale do Rio Doce and operates principally as finance company.

#### **2** Presentation of financial statements

The financial statements are prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). The transactions are accounted for in United States dollars and are tax exempt.

### 3 Cash and cash equivalents

Cash and cash equivalents are denominated in U.S. dollars and represented, by short-term bank deposits.

## 4 Subsequent event

On March 8, 2002, the Company issued US\$ 300,000,000 of 8.625% Enhanced Guaranteed Notes due March 8, 2007 Unconditionally Guaranteed by Companhia Vale do Rio Doce.

\* \* \*

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Report of Deloitte Touche Tohmatsu dated January 25, 2002 with respect to financial statements of Celmar S.AIndústria de Celulose e Papel for the two	
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financial statements of SIBRA Eletrosiderúrgica Brasileira S.A. for the two years ended December 31, 2001 and 2000	B-27

To the Directors and Stockholders of ALBRAS - Alumínio Brasíleiro S.A. Barcarena – PA

We have audited the accompanying balance sheets of ALBRAS - Alumínio Brasíleiro S.A. as of December 31, 2001 and 2000, and the related statements of operations, changes in stockholders' equity (deficiency) and cash flows for the three-year period ended December 31, 2001 (all expressed in United States dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of ALBRAS - Alumínio Brasíleiro S.A. at December 31, 2001 and 2000 and the results of its operations and its cash flows for the three-year period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 24, 2002

To the Directors and Stockholders ALUNORTE - Alumina do Norte do Brasil S.A. Barcarena – PA

We have audited the accompanying balance sheets of ALUNORTE - Alumina do Norte do Brasil S.A. as of December 31, 2001 and 2000, and the related statements of operations, changes in stockholders' equity and cash flows for the three-year period ended December 31, 2001 (all expressed in United States dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion the accompanying financial statements referred to above present fairly, in all material respects, the financial position of ALUNORTE - Alumina do Norte do Brasil S.A. as of December 31, 2001 and 2000 and the results of its operations and its cash flows for the three-year period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 24, 2002

To the Board of Directors and Stockholders of Vale do Rio Doce Alumínio S.A. - ALUVALE

We have audited the accompanying balance sheets of Vale do Rio Doce Alumínio S.A. - ALUVALE as of December 31, 2001 and 2000, and the related statements of operations, cash flows and changes in stockholders' equity for each of the three years in the period ended December 31, 2001 (all expressed in United States dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We did not audit the financial statements of the Mineração Rio do Norte S.A and Valesul Alumínio S.A, the Company's investments which are accounted for by use of the equity method. The Company's equity in the aforementioned affiliated companies' net assets at December 31, 2001 and 2000, totaling US\$204,951,000 and US\$197,104,000, respectively, and the Company's net equity in the aforementioned affiliated companies' net income for the years ended December 31, 2001, 2000 and 1999, totaling US\$51,990,000, US\$47,861,000 and US\$10,538,000, respectively, are included in the accompanying financial statements. The financial statements of the above mentioned affiliated companies were audited by other auditors whose reports have been furnished to us, and our opinion, insofar as it relates to the amounts included for such companies, is based solely on the reports of such other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the reports of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the reports of other auditors, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of Vale do Rio Doce Alumínio S.A. - ALUVALE as of December 31, 2001 and 2000 and the results of its operations, the changes in its stockholders' equity and its cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 30, 2002

#### INDEPENDENT AUDITORS' REPORT

The Board of Directors and Shareholders of Bahia Sul Celulose S.A.

We have audited the accompanying consolidated balance sheets of Bahia Sul Celulose S.A. and subsidiaries as of December 31, 2000 and 1999, and the related consolidated statements of income, shareholders' equity and comprehensive (loss) income and cash flows for each of the years in the three-year period ended December 31, 2000. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Bahia Sul Celluose S.A. and subsidiaries as of December 31, 2000 and 1999, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States of America.

/s/ KPMG Auditors Independentes

São Paulo, Brazil February 6, 2001

#### INDEPENDENT AUDITORS' REPORT

The Board of Directors California Steel Industries, Inc.

We have audited the accompanying consolidated balance sheets of California Steel Industries, Inc. and subsidiary as of December 31, 2001 and 2000 and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2001. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of California Steel Industries, Inc. and subsidiary as of December 31, 2001 and 2000 and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America.

/s/ KPMG LLP

Orange County, California January 21, 2002

To the Shareholders and Directors of Celulose Nipo-Brasileira S.A. - CENIBRA Belo Oriente/MG

We have audited the accompanying consolidated balance sheets of Celulose Nipo-Brasileira S.A. - CENIBRA as of December 31, 2001 and 2000 and the related statements of operations, changes in stockholders' equity and of cash flows for the years then ended (all expressed in United States dollars). These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Celulose Nipo-Brasileira S.A. - CENIBRA and its subsidiaries as of December 31, 2001 and 2000, the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 25, 2002

To the Shareholders and Directors of Celulose Nipo-Brasileira S/A - CENIBRA Belo Oriente/MG

We have audited the accompanying consolidated balance sheet of Celulose Nipo-Brasileira S/A - CENIBRA as of December 31, 1999 and the related statements of operations, changes in stockholders' equity and of cash flows for the year then ended (all expressed in United States dollars). These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The consolidated financial statements of the Company for the years ended December 31, 1998 and 1997 were audited by other auditors whose reports, dated January 21, 1999 and February 6, 1998, respectively, expressed qualified opinion for 1998, in relation to the same matter mentioned in the third paragraph, the effect of which was US\$6,500,000, and an unqualified opinion for 1997.

We conducted our audit in accordance with generally accepted auditing standards in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As mentioned in note 4, the Company has a lawsuit related to the deductibility of the effects of the restatement determined by Law N°7.730/89, which established the "Plano Verão". Until December 31, 1997 the Company had recorded a provision for contingency in the amount of US\$6,518,000 related to the tax effects (income tax and social contribution) for the use of the deductibility mentioned above. In December 1998, based on the opinion of its legal advisors, the management of the Company decided to revert the amount recorded as a provision for contingency. The Company obtained favorable decisions in lower courts, but the claim is still pending a decision in the Superior Court. We understand that conservatively, the Company should have maintained the recorded provision, and as such, the stockholders' equity as at December 31, 1999 is overstated by approximately US\$4,611,000.

In our opinion, except for the matter mentioned in the preceding paragraph, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Celulose Nipo-Brasileira S/A - CENIBRA and its subsidiaries as of December 31, 1999 and the results of their operations and

their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 21, 2000

To the Board of Directors and Stockholders Navegação Vale do Rio Doce S.A. – DOCENAVE Rio de Janeiro – RJ

We have audited the accompanying consolidated balance sheets of Navegação Vale do Rio Doce S.A. – DOCENAVE and subsidiaries as of December 31, 2001 and 2000, and the related consolidated statements of operations, cash flows and changes in stockholders' equity for the three-year period ended December 31, 2001 (all expressed in United States dollars). These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We did not audit the financial statements of the affiliated company, Wilsea Shipping, Inc., the Company's investment which is accounted for by use of the equity method. The Company's equity of US\$647,000 and US\$36,257,000 in the aforementioned affiliated company's net assets at December 31, 2001 and 2000, respectively, and net loss of US\$610,000 and net income of US\$13,984,000 and US\$783,000 in that company's net income (loss) for the years ended December 31, 2001, 2000 and 1999, respectively, are included in the accompanying financial statements. The financial statements of the above mentioned affiliated company were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for such company, is based solely on the report of such other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the reports of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of other auditors, the accompanying financial statements referred to above presented fairly, in all material respects, the financial position of Navegação Vale do Rio Doce S.A. – DOCENAVE and subsidiaries as of December 31, 2001 and 2000, and the results of its operations and its cash flows for the three-year period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 25, 2002

To The Board of Directors and Stockholders of DOCEPAR S.A. Rio de Janeiro – RJ

We have audited the accompanying balance sheet of DOCEPAR S.A. (previously Vale do Rio Doce Navegação S.A. – DOCENAVE) as of December 31, 1999 and the related statements of operations, cash flows and changes in stockholders' equity for the year then ended (all expressed in United States Dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. We did not audit the financial statements of the affiliated company, Companhia Siderúrgica Nacional, the Company's investments which is accounted for by use of the equity method. The Company's equity of US\$133,569,000 in the aforementioned affiliated company's net assets at December 31, 1999 and of US\$3,328,000 in that company's net income for the year then ended are included in the accompanying financial statements. The financial statements of the above mentioned affiliated company were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for such company, is based solely on the reports of such other auditors.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit and the report of the other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audit and the report of the other auditors, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of DOCEPAR S.A. as of December 31, 1999 and the result of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

The Company is not presenting the comparative financial statements for the years ended December 31, 1998 and 1997 due to certain corporate restructuring changes in the reporting entity, as explained in note 1.

/s/ Deloitte Touche Tohmatsu

February 18, 2000

To The Board of Directors and Stockholders of DOCEPAR S.A.
Rio de Janeiro – RJ
Brazil

We have audited the accompanying balance sheets of DOCEPAR S.A. as of December 31, 2001 and 2000 and the related statements of operations, cash flows and changes in stockholders' deficiency for the years then ended (all expressed in United States dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We did not audit the financial statements of the affiliated company, Companhia Siderúrgica Nacional, the Company's investment which was sold during the year 2000 and was accounted for by use of the equity method. The Company's gain related to the aforementioned affiliated company was US\$4,189,000 and US\$3,328,000 for the year ended December 31, 2000 and 1999, respectively. The financial statements of the above mentioned affiliated company were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for such company, is based solely on the reports of such other auditors.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the report of the other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of the other accountants, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of DOCEPAR S.A. as of December 31, 2001 and 2000 and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 25, 2002

#### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Stockholders of Companhia Hispano-Brasileira de Pelotização – HISPANOBRÁS:

- (1) We have audited the accompanying balance sheets of Companhia Hispano-Brasileira de Pelotização Hispanobrás (a Brazilian corporation and a subsidiary of Companhia Vale do Rio Doce), translated into U.S. dollars, as of December 31, 2001 and 2000, and the related translated statements of income, changes in stockholders' equity and cash flows for the years ended December 31, 2001, 2000 and 1999. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.
- (2) We conducted our audits in accordance with generally accepted auditing standards in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.
- (3) These translated financial statements have been prepared as the basis for application of the equity method by its stockholders and, accordingly, they translate the assets, liabilities, stockholders' equity and revenues and expenses of Companhia Hispano-Brasileira de Pelotização Hispanobrás for that purpose, as explained in Note 2.
- (4) In our opinion, the financial statements referred to in paragraph 1 present fairly, in all material respects, and for the purpose described in the preceding paragraph, the financial position of Companhia Hispano-Brasileira de Pelotização Hispanobrás as of December 31, 2001 and 2000, and the results of its operations, the changes in its stockholders' equity and its cash flows for the years ended December 31, 2001, 2000 and 1999, in conformity with the generally accepted accounting principles of the United States of America.

/s/ Arthur Andersen

Rio de Janeiro, Brazil, January 24, 2002

#### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Stockholders of Companhia Italo-Brasdeira de Pelotização – ITABRASCO:

- (1) We have audited the accompaning, balance sheets of Companhia Italo-Brasdeira de Pelotização Itabrasco (a Brazilian corporation and a subsidiary of Companhia Vale do Rio Doce), translated into US dollars, as of December 31, 2001 and 2000 and the related translated statements of income, changes in stockholders' equity and cash flows for the years ended December 31, 2001, 2000 and 1999. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.
- (2) We conducted our audits in accordance with generally accepted auditing standards in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.
- (3) These translated financial statements have been prepared as the basis for application of the equity method by its stockholders and, accordingly, they translate the assets, liabilities, stockholders' equity and revenues and expenses of Companhia Italo-Brasdeira de Pelotização Itabrasco for that purpose, as explained in Note 2.
- (4) In our opinion, the financial statements referred to in paragraph 1 present fairly, in all material respects, and for the purpose described in the preceding paragraph, the financial position of Companhia Italo-Brasdeira de Pelotização Itabrasco as of December 31, 2001 and 2000, and the results of its operations, the changes in its stockholders' equity and its cash flows for the years ended December 31, 2001, 2000 and 1999, in conformity with the generally accepted accounting principles of the United States of America.

/s/ Arthur Andersen

Rio de Janeiro, Brazil, January 24, 2002

#### INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders of Companhia Coreano-Brasileira de Pelotização – KOBRASCO Vitória, Brazil

- 1. We have audited the accompanying consolidated balance sheets of Companhia Coreano-Brasileira de Pelotização KOBRASCO as of December 31, 2001 and 2000, and the related consolidated statements of operations, changes in stockholders' equity and cash flows for the years then ended (all expressed in United States dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of the Company for the year ended December 31, 1999 were audited by other auditors whose report thereon, dated January 14, 2000, expressed an unqualified opinion on those statements.
- We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.
- 3. The Company did not record a valuation allowance in the amount of US\$24,758 thousand as of December 31, 2001, in respect of recoverable value-added tax (ICMS) credits which originated from purchases of raw materials and other supplies, the realization of which is currently not determinable. Accordingly, the net income for the year and the stockholders' equity are overstated in the amount of US\$24,758 thousand as of December 31, 2001.
- 4. In our opinion, except for the effects of the matter described in paragraph 3, the accompanying consolidated financial statements referred to above present fairly, in all material respects, the financial position of Companhia Coreano-Brasileira de Pelotização KOBRASCO as of December 31, 2001 and 2000, and the consolidated statements of operations and cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Deloitte Touche Tohmatsu

January 18, 2002

#### REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Stockholders and Board of Directors of Mineração Rio do Norte S.A.:

- (1) We have audited the accompanying balance sheets of Mineração Rio Do Norte S.A. (a Brazilian corporation), translated into US dollars, as of December 31, 2001 and 2000, and the related translated statements of income, changes in stockholders' equity and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.
- (2) We did not audit the financial statements of the associated company Alunorte Alumina do Norte do Brasil S.A. as of December 31, 2001 and 2000. This investment represents 4% of the total assets (3% in 2000) and -1% of the net income (7% in 2000). Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for that entity, is based solely on the report of the other auditors.
- (3) We conducted our audits in accordance with generally accepted auditing standards in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits and the report of other auditors provide a reasonable basis for our opinion.
- (4) These translated financial statements have been prepared as the basis for application of the equity method by the Company's stockholders and, accordingly, they translate the assets, liabilities, stockholders' equity and revenues and expenses of Mineração Rio do Norte S.A. for that purpose, as explained in Note 2.
- (5) In our opinion, based on our audits and on the report of other auditors, as mentioned in paragraph 2, the financial statements referred to in paragraph 1 present fairly, in all material respects, and for the purpose described in the preceding paragraph, the financial position of Mineração Rio do Norte S.A. as of December 31, 2001 and 2000, and the results of its operations, the changes in its stockholders' equity and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Arthur Andersen

Rio de Janeiro, Brazil, January 25, 2002

To the Board of Directors and Stockholders of Companhia Nipo-Brasileira de Pelotização – NIBRASCO Vitória, Brazil

We have audited the accompanying balance sheets of Companhia Nipo-Brasileira de Pelotização – NIBRASCO as of December 31, 2001 and 2000, and the related statements of operations, changes in stockholders' equity and cash flows for the three-year period ended December 31, 2001 (all expressed in United States dollars). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of Companhia Nipo-Brasileira de Pelotização – NIBRASCO at December 31, 2001 and 2000, and the results of its operations and its cash flows for the three-year period ended December 31, 2001, in conformity with accounting principles generally accepted in United States of America.

/s/ Deloitte Touche Tohmatsu

January 18, 2002

#### INDEPENDENT AUDITORS' REPORT

To The Board of Directors of Valesul Alumínio S.A.

We have audited the accompanying balance sheets of Valesul Alumínio S.A. as of December 31, 2001 and 2000, and the related statements of income, changes in stockholders' equity and comprehensive income/loss and cash flows for each of the years in the three-year period then ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Brazil and in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Valesul Alumínio S.A. as of December 31, 2001, 2000 and 1999, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

As more fully described in Notes 4 and 8 to the financial statements, the company has adjusted its property, plant and equipment and deferred income taxes accounting balances as a result of corrections of errors. Consequently, the Company's financial statements for 2000 and 1999 referred to above have been restated to conform with these adjustments.

/s/ KPMG Auditors Independentes

Rio de Janeiro, Brazil January 17, 2002

To The Stockholders and Board of Directors TVV – Terminal de Vila Velha S.A. Vitória – ES

We have audited the balance sheets of TVV – Terminal de Vila Velha S.A. as of December 31, 2000 and 1999, and the related statements of operations, changes in stockholders' equity and changes in financial position for the years then ended (all expressed in Brazilian Reais). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Brazil, and included: (a) planning the audit, considering the materiality of the amounts presented, the number of transactions and the Company's accounting and internal control systems; (b) examining, on a test basis, the evidence supporting the amounts and disclosures in the financial statements; and (c) the assessment of the accounting principles used and of the significant estimates made by management, as well as the presentation of the financial statements taken as a whole.

In our opinion, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position as of December 31, 2000 and 1999, and the results of its operations, changes in its stockholders' equity and changes in its financial position for the years then ended, in conformity with Brazilian corporate law.

The translation of the financial statements into English have been made solely for the convenience of readers outside of Brazil.

/s/ Deloitte Touche Tohmatsu

Vitória, February 2, 2001

To The Stockholders and Board of Directors TVV – Terminal de Vila Velha S.A. Vitória – ES

We have audited the balance sheets of TVV – Terminal de Vila Velha S.A. as of December 31, 2001 and 2000, and the related statements of operations, changes in stockholders' equity and changes in financial position for the years then ended (all expressed in Brazilian Reais). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Brazil, and included: (a) planning the audit, considering the materiality of the amounts presented, the number of transactions and the Company's accounting and internal control systems; (b) examining, on a test basis, the evidence supporting the amounts and disclosures in the financial statements; and (c) the assessment of the accounting principles used and of the significant estimates made by management, as well as the presentation of the financial statements taken as a whole.

In our opinion, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position as of December 31, 2001 and 2000, and the results of its operations, changes in its stockholders' equity and changes in its financial position for the years then ended, in conformity with Brazilian corporate law.

The translation of the financial statements into English have been made solely for the convenience of readers outside of Brazil.

/s/ Deloitte Touche Tohmatsu

Vitória, January 30, 2002

#### INDEPENDENT AUDITORS' REPORT

To the Management and Stockholders of Nova Era Silicon S.A. Belo Horizonte/MG

- 1. We have audited the accompanying balance sheets of Nova Era Silicon S.A. as of December 31, 2001 and 2000, and the related statements of income, changes in stockholders' equity and changes in financial position for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.
- 2. Except for matter mentioned in the third paragraph, we conducted our audits in accordance with generally accepted auditing standards in Brazil, which included: (a) planning of the engagement, considering the materiality of the balances, the volume of transactions and the accounting and internal control system of the Company; (b) examination, on a test basis, of the evidence and records supporting the amounts and disclosures in the financial statements; and (c) evaluation of the accounting principles used and significant estimates made by the management of the company, as well as the overall financial statement presentation.
- 3. The Company has calculated the depletion of some of its forests, whose net balance as of December 31, 2001 was R\$3.257 thousand (R\$3.760 thousand in 2000), at a 10% annual rate (straight line method). As required by accounting principles, depletion of forests should be calculated based on the volume of timber that has been extracted in proportion to total potential volume, applied to total cost. We were unable to measure the effects arising from the adoption of such a procedure as of December 31, 2001 and 2000.
- 4. As of December 31, 1999, the Company elected to follow Resolution 294, issued by the Brazilian Securities and Exchange Commission CVM, and recorded in its deferred assets the net loss on exchange variation for the three-month period ended March 31, 1999. As required by accounting principles, exchange variation should be charged to expenses in the period in which they were incurred. Consequently, permanent assets and stockholders' equity as of December 31, 2001 were overstated by R\$2.066 thousand (R\$4.128 thousand in 2000), and net income for the year then ended was understated by R\$2.062 thousand (R\$2.062 thousand in 2000), related to the respective amortization.
- 5. In our opinion, except for the effects, if any, of the matter mentioned in the third paragraph and for the effects of the matter mentioned in the fourth paragraph, the financial statements referred to in the first paragraph present fairly, in all material respects, the financial position of Nova Era Silicon S.A.

as of December 31, 2001 and 2000, and the results of its operations, the changes in its stockholders' equity and the changes in its financial position for the years then ended, in conformity with accounting principles established by Brazilian corporate law.

6. The translation of the financial statements into English have been made solely for the convenience of readers outside of Brazil.

/s/ Deloitte Touche Tohmatsu

January 25, 2002

This is a free translation of the original report in Portuguese, issued in January 18, 2000 of financial statements prepared in accordance with Brazilian generally accepted accounting principles.

#### INDEPENDENT AUDITORS' REPORT

To The Shareholders and Management of Nova Era Silicon S.A.

- 1. We have examined the balance sheets of Nova Era Silicon S.A. as of December 31, 1999 and 1998, and the related statements of income, changes in shareholders' equity and changes in financial position for the years then ended, all prepared under the responsibility of management. Our responsibility is to issue an opinion on these financial statements, based on our audit.
- 2. Except for the subject referred to in paragraph 3, we conducted our audit in accordance with Brazilian generally accepted auditing standards, which require that we plan and perform the audit to obtain reasonable assurance as to whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles and internal control system used, and the significant estimates made by the management, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.
- 3. The Company has calculated the depletion of the forests, whose net amount at December 31, 1999 is R\$3,859 (R\$3,998 at 1998), considering the straight-line method and the rate of 10% per annum. Brazilian generally accepted accounting principles require that depletion of the forest should be calculated considering the amount of wood extracted in relation to the total potential of extraction of the referred forests. The possible effects related to the deviation of accounting principles has not been measured as of the balance sheet dates.
- 4. Exercising the permission contained in the Deliberation 294 of the Brazilian Securities Exchange Commission (CVM, the *Comissao de Valores Mobilanos*) as of March 28, 1999, the company recorded the negative net effect from exchange variation for the three-months period ended March 31, 1999 as a deferred asset. Brazilian generally accepted accounting principles state that exchange variations are to be registered as an expense on the period of their occurrence. Consequently, the permanent assets (deferred assets) and the shareholders' equity as of December 31, 1999 and the net income for the year then ended are overstated in an amount of R\$6.190 thousand.

5. In our opinion, except for the possible effects regarding the subject mentioned in paragraph 3, and the effects of the exchange variation mentioned in paragraph 4, the financial statements referred to in paragraph 1 present fairly, in all material respects, the financial position of Nova Era Silicon S.A. as of December 31, 1999 and 1998, the results of its operations, the changes in its shareholders' equity and in financial position for the years then ended, in accordance to accounting practices prescribed by Brazilian corporate law.

Belo Horizonte, Brazil

January 18<sup>th</sup>, 2000 (except for the subject mentioned on the paragraph 3 that is dated on January 31<sup>st</sup>, 2002)

/s/ Luiz Cláudio Fontes

Luiz Cláudio Fontes CRC 1RJ032470/O-9 "T" PR "S" MG Trevisan Auditores Independentes CRC 2SP013439/O-5 "S" MG

#### INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of CELMAR S.A. – Indústria de Celulose e Papel Imperatriz – Maranhão

We have audited the accompanying balance sheets of CELMAR S.A. – Indústria de Celulose e Papel, as of December 31, 2001 and 2000, and the related statements of changes in shareholders' equity and changes in financial position for the years then ended (all expressed in Brazilian Reais). These financial statements are a responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in Brazil and included: (a) planning the audit, considering the materiality of the amounts presented, the number of transactions and the Company's accounting and internal control systems; (b) examining, on a test basis, the evidence supporting the amounts and disclosures in the financial statements; and (c) an assessment of the accounting principles and of the significant estimates made by management, as well as the presentation of the financial statements taken as a whole.

In our opinion, the fnancial statements referred to in the first paragraph present fairly, in all material respects, the financial position of CELMAR S.A. – Indústria de Celulose e Papel on December 31, 2001 and 2000 and the changes in its shareholders' equity and changes in its financial position for the years then ended, in conformity with accounting principles promulgated by Brazilian Corporate Law.

The Company is in the pre-operating phase. As described in note 1, the Company is currently assessing changes in the project, originally designed for pulp production, now aiming at only making use of the already existing forested areas. In addition, the Company's management is endeavoring to renegotiate its loans and financing, in order to achieve financial equilibrium. The continuity of the project and the recovery of already invested costs depend on the financial success of the changes in the project, as well as on the ability to secure new funds.

The accompanying financial statements have been translated from the original version in Portuguese into English for the convenience of readers outside Brazil.

/s/ Deloitte Touche Tohmatsu

January 25, 2002

#### INDEPENDENT AUDITORS' REPORT

To the Shareholders, Administrative Council and Directors of SIBRA – ELETROSIDERÚRGICA BRASILEIRA S.A.

- 1. We have audited the accompanying consolidated balance sheets of SIBRA ELETROSIDERÚRGICA BRASILEIRA S.A. and Subsidiaries, as of December 31, 2001 and 2000, and the related consolidated statements of operations, changes in shareholders' equity and cash flows consolidated for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.
- 2. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence; supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.
- 3. In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of SIBRA ELETROSIDERÚRGICA BRASILEIRA S.A. and Subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.
- 4. As described in notes 13 and 15, the affiliated company Companhia Paulista de Ferro-Ligas has various pending legal suits and notices of violation. Based on the opinion of their legal advisors, Management has constituted provisions, which it believes are sufficient to cover expected losses in the amount of US\$ 2.519 thousand.

/s/ Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU Auditores Independentes Salvator – Brazil

February 15, 2002

### INDEX TO EXHIBITS

Exhibit Number		
1	Instrument corresponding to Articles of Incorporation and By-laws, as revised on May 20, 2002 (English translation).	
8	List of Subsidiaries.	
10.1	Consent of PricewaterhouseCoopers Auditores Independentes for the three years ended December 31, 2001, 2000 and 1999 (CVRD).	
10.2	Consent of PricewaterhouseCoopers Auditores Independentes for the year ended December 31, 2001 (Vale Overseas)	
10.3	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Albras).	
10.4	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Alunorte).	
10.5	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Aluvale).	
10.6	Consent of KPMG Auditores Independentes for the two years ended December 31, 2000 and 1999 (Bahia Sul).	
10.7	Consent of KPMG LLP for the three years ended December 31, 2001, 2000 and 1999 (CSI).	
10.8	Consents of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Cenibra).	
10.9	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Docenave).	
10.10	Consents of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Docepar).	
10.11	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000 (Kobrasco).	
10.12	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (Nibrasco).	
10.13	Consent of KPMG Auditores Independentes for the three years ended December 31, 2001, 2000, and 1999 (Valesul).	
10.14	Consent of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999 (CSN).	
10.15	Consents of Deloitte Touche Tohmatsu for the three years ended December 31, 2001, 2000 and 1999. (Terminal Vila Velha S.A.).	
10.16	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000. (Nova Era Silicon S.A.).	

10.17	Consent of Trevisan for the year ended December 31, 1999. (Nova Era Silicon S.A.).	
10.18	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000. (Celmar S.AIndústria de Celulose e Papel).	
10.19	Consent of Deloitte Touche Tohmatsu for the two years ended December 31, 2001 and 2000. (SIBRA Eletrosiderúrgica Brasileira S.A.).	
10.20	Consent of AMEC Engineering and Construction Services.	
10.21	Letter from CVRD regarding auditing by Arthur Andersen	

# Exhibit 1

### **BY-LAWS**

As amended at the Ordinary and Extraordinary Shareholders' Meeting held on May 20th, 2002



#### **BY-LAWS**

### CHAPTER I - NAME, PURPOSE, HEAD OFFICE AND DURATION

**Article 1 -** COMPANHIA VALE DO RIO DOCE, referred to in abbreviated form as CVRD, is a joint-stock company governed by the present By-Laws and by applicable legislation.

**Article 2 -** The purpose of the company is the exploitation of mineral deposits in Brazil and abroad by means of the extraction, processing, industrialization, transportation, shipment and commerce of mineral assets, as well as:

- I. the building and operation of railways and the exploitation of rail traffic:
- II. the operation of marine terminals, including nautical activities for the provision of support within the harbor;
- III. the exploitation, industrialization and commerce of forest resources;
- IV. the carrying-on, in Brazil or abroad, of other activities that may be of direct or indirect consequence for the achievement of its corporate purpose, including research, industrialization, purchase and sale, importation and exportation and the provision of services of any kind whatsoever;
- V. constituting or participating in any fashion in other companies related to its business purpose.

**Article 3 -** The head office and legal venue of the company shall be in the city of Rio de Janeiro, State of Rio de Janeiro, the company being empowered for the better realization of its activities to set up branch offices, subsidiary branch offices, depots, agencies, warehouses, representative offices or any other type of establishment in Brazil or abroad.

**Article 4 -** The term of duration of the company shall be unlimited.



#### **CHAPTER II - CAPITAL AND SHARES**

**Article 5 -** The share capital is R\$ 5.000.000.000,00 (five billion reais), corresponding to 388,559,056 (three hundred and eighty-eight million, five hundred and fifty-nine thousand and fifty-six) book shares, being 249,983,143 (two hundred and forty-nine million, nine hundred and eighty-three thousand one hundred and forty-three) common shares corresponding to R\$ 3.216.797.281,39 (three billion, two hundred and sixteen million, seven hundred and ninety-seven thousand and two hundred and eighty-one reais and thirty-nine cents), and 138,575,913 (one hundred and thirty-eight million, five hundred and seventy-five thousand nine hundred and thirteen) class "A" preferred shares, including 1 (one) special class share, corresponding to R\$ 1.783.202.718,61 (one billion, seven hundred and eighty-three, two hundred and two thousand, seven hundred and eighteen reais and sixty-one cents), all of no par value.

- § 1 The shares are divided into common shares and preferred shares of classes "A" and "B", the latter at present being non-existent.
- § 2 The special class preferred share shall belong exclusively to the Federal Government. In addition to the other rights assigned to it in the present By-Laws, the special class share shall possess the same rights as the class "A" preferred shares.
- § 3 Each common and class "A" preferred share and the special class preferred share shall confer the right to one vote in decisions made at General Meetings, the provisions of § 4 following being observed.
- § 4 The class "A" and special class preferred shares shall have the same rights as the common shares with the exception of the right to vote at the election of members of the Board of Directors, but shall nevertheless possess the right jointly to elect one member of the Audit Committee and the respective alternate.
- § 5 The class "B" preferred shares shall have no voting rights.
- § 6 Holders of class "A" preferred shares shall have priority in receipt of an annual minimum dividend of 6% (six per cent) calculated on the portion of the capital formed by this class of shares and divided equally among them.



- § 7 Holders of class "B" preferred shares shall have priority in receipt of an annual minimum dividend of 6% (six per cent) calculated on the portion of the capital formed by this class of share and divided equally among them after the dividend of the class "A" preferred shares has been paid or provision has been made for such payment.
- § 8 The holders of the preferred shares of classes "A" and "B" shall be entitled to receive dividends and bonuses on the same conditions as those for common shares, the priorities specified in paragraphs § 6 and § 7 being observed.
- § 9 The General Meeting or Board of Directors shall, within the authorized limit of capital, be entitled to authorize increases of the share capital by means of the issuance of class "B" preferred shares irrespective of the ratio previously existing between such shares and the common and/or class "A" preferred shares. In any increase of capital the ratio previously existing between the common shares and the class "A" preferred shares shall always be respected.
- § 10 Should the shareholders' preemptive right be excluded in any increase of the subscribed capital of the company, whether in the manner set forth in § 2 of Article 6 below or by reason of the amalgamation of another company or of any other reorganization of a corporate nature, such increase of capital may be effected by means of the issuance of class "B" preferred shares.
- § 11 Preferred shares without voting rights or with restricted voting rights shall only acquire such rights should the company fail to pay the fixed or minimum dividends to which they are entitled during 3 (three) consecutive fiscal years.
- **Article 6 -** The company is authorized to increase its share capital up to the limit of 300,000,000 (three hundred million) common shares and 600,000,000 (six hundred million) class "A" and "B" preferred shares. Within the limit authorized by the present Article the company shall, by means of a decision of the Board of Directors, be entitled to increase the share capital without any alteration of the By-Laws by means of the issuance of common shares and/or preferred shares of class "A" or class "B" as prescribed by § 9 of Article 5.
  - § 1 The Board of Directors shall determine the conditions for issuance, including the price and the period of time prescribed for paying up.



- § 2 At the option of the Board of Directors the preemptive right in the issuance of shares, bonds convertible into shares and subscription bonuses, the placement of which on the market may be by sale on the stock exchange or by public subscription as per the prescriptions set forth in Law no. 6.404/76, may be rescinded.
- § 3 Provided that the plans approved by the General Meeting are complied with, the company shall be entitled to delegate the option of share purchase to its managers and employees or to individuals who provide services to the company, with shares held in custody or by means of the issuance of new shares, the shareholders' preemptive right being excluded.

**Article 7 -** The special class share shall possess a veto right regarding of the following subjects:

- I. change of name of the company;
- II. change of location of the head office;
- III. change of the corporate purpose with reference to mineral exploitation;
- IV. the winding-up of the company;
- the sale or cessation of the activities of any part or of the whole of the following categories of the integrated iron ore systems of the company: (a) mineral deposits, reserves and mines; (b) railways;
   (c) ports and marine terminals;
- VI. any alteration of the rights assigned to the types and classes of the shares issued by the company in accordance with the prescriptions set forth in the present By-Laws;
- VII. any alteration of the present Article 7 or of any of the other rights assigned to the special class share by the present By-Laws.



#### **CHAPTER III - GENERAL MEETING**

**Article 8 -** The ordinary Shareholders' General Meeting shall be held within the first four months following the end of the fiscal year and, extraordinarily, whenever called by the Board of Directors.

- § 1 An extraordinary Shareholders' General Meeting shall be competent to discuss the subjects specified in Article 7.
- § 2 The holder of the special class share shall be formally requested by the company to attend for the purpose of discussing the subjects specified in Article 7 by means of personal correspondence addressed to its legal representative, a minimum period of notice of 15 (fifteen) days being given.
- § 3 Should the holder of the special class share be absent from the General Meeting called for this purpose or should it abstain from voting, the subjects specified in Article 7 shall be deemed as having been approved by the holder of the said special class share.

**Article 9 -** At an Ordinary or Extraordinary General Meeting, the chair shall be taken by the Chairman, or in his absence by the Vice-Chairman of the Board of Directors of the company, a shareholder being invited by the Chairman of the Meeting to act as secretary.

### **CHAPTER IV - ADMINISTRATION**

**Article 10 -** The Board of Directors and the Executive Board shall be responsible for the administration of the company.

- § 1 The term of office of the members of the Board of Directors and the Executive Board shall be 3 (three) years, their re-election being permitted.
- § 2 The members of the Board of Directors and the Executive Board shall take office by means of signing the Minute Book of the Board of Directors or the Executive Board, as the case may be.



- § 3 The term of office of the members of the Board of Directors and the Executive Board shall be extended until their respective successors have taken office.
- § 4 The General Meeting shall fix the overall amount for the remuneration of the administrators, benefits of any kind and allowances being included therein, taking into account the responsibilities of the administrators, the time devoted to the performance of their duties, their competence and professional repute and the market value of their services. The Board of Directors shall apportion the fixed remuneration among its members and the Executive Board.

#### **SECTION I - BOARD OF DIRECTORS**

**Article 11 -** The Board of Directors, a joint decision-making body, shall be elected by the General Meeting and shall be formed of 9 (nine) effective members and their respective alternates, all being resident in Brazil, shareholders in the company and of distinguished professional repute in the field of business administration.

- § 1 The Chairman and the Vice-Chairman of the Board of Directors shall be elected among the members thereof during a Meeting of the Board of Directors to be held immediately after the General Meeting which has elected them.
- § 2 At the time of election of the Board of Directors, 1 (one) of its members and his respective alternate shall be elected, by means of a separate vote, by the body of the employees of the company. Once the separate vote form provided for in the present paragraph has been concluded, those shareholders who are employees of the company shall take no part in the election of the remaining members of the Board of Directors, whatever the manner or process of such election may be.
- § 3 In the case of vacancy in the office of Chairman, or of his impediment or temporary absence, the Vice-Chairman shall replace the Chairman and shall, during the period of such replacement, have powers identical to those of the Chairman, the alternate of the Chairman being nevertheless entitled to exercise the right to vote in his capacity as a member of the Board of Directors.



- § 4 Should a vacancy occur in the office of Chairman or Vice-Chairman, the Board of Directors shall elect the respective alternates in the first Meeting to be held after the vacancy.
- § 5 During their impediments or temporary absences, members of the Board of Directors shall be replaced by their respective alternates.
- § 6 Should a vacancy occur in the office of a member of the Board of Directors or of an alternate, the vacancy shall be filled by nomination by the remaining members of an alternate who shall serve until the next General Meeting. Should vacancies occur in the majority of such offices, a General Meeting shall be convened in order to proceed with a new election.
- § 7 Should an absence or temporary impediment of the Chairman or the Vice-Chairman of the Board of Directors occur, the General Meeting of Shareholders shall be conducted by their respective alternates or, in case of their absence or impediment, by a member specially designated by the Board of Directors.
- **Article 12 -** The Board of Directors shall meet on an ordinary basis once a month and extraordinarily whenever called by the Chairman or, in his absence, by the Vice-Chairman of the Board or by any 2 (two) members acting together. Meetings of the Board of Directors shall only be held with the presence of and decisions shall only be taken by the affirmative vote of a majority of its members.
- **Article 13 -** The Board of Directors shall be responsible for:
  - I. establishing the general guidance of the business of the company, its wholly-owned subsidiary companies and controlled companies;
  - II. electing and at any time removing the Executive Officers of the company, including the Chief Executive Officer, and assigning functions to them, as well as assigning the functions of Investor Relations to an Executive Officer, and also appointing the persons who shall form part of the Administrative, Consultive and Audit bodies of those companies and organizations in which the company participates, directly or indirectly.
  - III. inspecting the management work of the Executive Officers and at any time examining the books and papers of the company, requesting information about contracts signed or about to be signed as well as about any other acts;



- IV. expressing its opinion with reference to the Annual Report and the financial statements of the Executive Board, as well as to consolidated balance sheets and reports;
- V. approving investment plans and programs, as well as the annual and multi-annual capital and operating budgets of the company, submitted to it by the Executive Board;
- VI. with the provisions set forth in Article 2 of the present By-Laws being complied with, making decisions concerning the setting-up of companies, direct or indirect participation in the capital of other companies, consortia, foundations and other entities, by means of the exercise of rights of withdrawal, the exercise or non-exercise of rights of subscription, or increase or sale, both direct and indirect, of corporate equity, or in any other manner prescribed by law;
- VII. establishing criteria and standards for the purchase of, sale of and placing of liens on fixed assets and for the constitution of encumbrances, the provisions set forth in Article 7 of the present By-Laws being complied with;
- VIII. establishing criteria and standards for loans, financing and contracts in general;
- IX. authorizing the negotiation, signing or alteration of contracts of any kind or value between the company and its shareholders, either directly or through intermediary companies or through companies which participate, directly or indirectly, in the controlling shareholder.
- X. determining the general policy of the company as regards its personnel and the criteria regarding the remuneration, rights and benefits of its employees, fixing the corresponding expenses;
- XI. authorizing the provision of guarantees to the third parties, including to companies in which it participates directly or indirectly, or to organizations or foundations;
- XII. approving the internal organization of the company and the assignment of responsibilities;
- XIII. selecting and removing independent accountants;
- XIV. expressing its opinion regarding any matter to be submitted to the General Meeting of Shareholders:



- XV. authorizing the purchase of shares of its own issuance for maintenance in treasury, cancellation or subsequent sale.
- XVI. appointing and removing the employee responsible for the internal auditing of the company, who shall report directly to the Board of Directors;
- XVII. approving any reformulation, alteration, or amendment of shareholders' agreements or of agreements among the shareholders of companies in which the company participates, as well as approving the signing of new agreements that address subjects of this nature.

#### **SECTION II - COMMITTEES**

- **Article 14 -** The Board of Directors may create technical or consultant Committees in order to perform specific tasks or non-specific activities of interest to the company.
- **Article 15 -** The members who are part of the Committees mentioned in the previous Article shall be subject to the same duties as the administrators and, at the Board of Directors' discretion, may be remunerated.
- **Article 16 -** The Committees created under the terms of Article 14 shall not have decision making power.

#### **SECTION III - EXECUTIVE BOARD**

- **Article 17 -** The Executive Board, the executive administration body of the company, shall consist of 3 (three) to 8 (eight) Executive Officers, one of whom shall be the Chief Executive Officer, the others having no specific designation, their respective areas of activities and business units being specified by the Board of Directors, all being resident in Brazil and of distinguished professional repute, their re-election being permitted.
- Article 18 In the case of the impediment or absence of the above mentioned Chief Executive Officer, same shall be replaced by another member of the Executive Board designated by the Board of Directors. In the case of the impediment or absence of any other Executive Officer, same shall be replaced by another member of the Executive Board designated by the Chief Executive Officer.



**Sole Paragraph -** Should a vacancy occur in the office of the Executive Officer, an alternate shall be elected at the next meeting of the Board of Directors subsequent to the occurrence of such vacancy. This alternate shall serve until the remainder of the term of office of the replaced Executive Officer has been concluded.

**Article 19 -** The Executive Board shall meet on an ordinary basis once a week and extraordinarily whenever called by any Executive Officer, decisions being taken with the presence of a majority of members, with the Chief Executive Officer ,or his substitute, being responsible for the coordination of its work, which shall be recorded in a minute book.

**Sole Paragraph -** In the case of a tie vote, the Executive Board shall submit the matter to the decision of the Board of Directors.

**Article 20 -** The Executive Board shall be responsible for:

- complying with and ensuring compliance with the general guidelines and business policies of the company laid down by the Board of Directors, each Executive Officer being responsible for the area of activities and for the business unit assigned to him by the Board of Directors;
- II. approving the rules regarding company personnel, in conformity with the general policy approved by the Board of Directors;
- III. authorizing the purchase of, sale of and placing of liens on fixed assets, being empowered to establish standards and delegate powers all in accordance with the criteria and standards established by the Board of Directors;
- IV. authorizing the purchase of, sale of and placing of liens on non-fixed assets including securities, being empowered to establish standards and delegate powers, all in accordance with the criteria and standards established by the Board of Directors;
- V. authorizing the signing of agreements, contracts and settlements that constitute liabilities, obligations or commitments on the company, being empowered to establish standards and delegate powers, all in accordance with the criteria and standards established by the Board of Directors;
- VI. preparing in each fiscal year the Annual Report and Financial Statements to be submitted to the Board of Directors and the General Meeting;



- VII. authorizing the opening and closing of branch offices, subsidiary branch offices, depots, agencies, warehouses, representative offices or any other type of establishment in Brazil or abroad;
- VIII. authorizing the waiver of rights and transactions, in both cases liens on securities being excepted, as well as the signing of arbitration agreements, being empowered to establish standards and delegate powers in accordance with the criteria and standards established by the Board of Directors;
- IX. negotiating any reformulation, alteration, or amendment of shareholders' agreements or of agreements among the shareholders of companies in which the company participates, as well as negotiating the signing of new agreements that address subjects of this nature.
- § 1 The Executive Board shall be empowered to lay down voting guidelines to be followed at the General Meetings by its proxies in the companies, foundations and other entities in which the company participates, directly or indirectly, the investment plans and programs of the company, as well as the respective budgets being complied with, the limit of responsability being observed as regards, among others, indebtedness, the sale of assets, the waiver of rights and the reduction of corporate equity investments.
- § 2 Without prejudice to the exercise of authority by the Board of Directors, the Executive Board shall take steps to appoint persons who shall form part of the Administrative, Consultive and Audit bodies of those companies and organizations in which the company participates directly or indirectly.
- **Article 21 -** The responsibilities of the Chief Executive Officer are to:
  - I. take the chair at meetings of the Executive Board;
  - II. exercise executive direction of the Company, with powers to coordinate and supervise the activities of the other Executive Officers, exerting his best efforts to ensure faithful compliance with the decisions and guidelines laid down by the Board of Directors and the General Meeting;
  - III. coordinate and supervise the activities of the business areas and units that are directly subordinated to him;
  - IV. grant vacation and leave to the members of the Executive Board;



- V. keep the Board of Directors informed about the activities of the company;
- VI. together with the other Executive Officers, prepare the annual report and draw up the balance sheet.
- Article 22 The responsabilities of the Executive Officers are to:
  - I. organize the services for which they are responsible;
  - participate in meetings of the Executive Board, contributing to the definition of the policies to be followed by the Company and reporting on matters of the respective areas of supervision and coordination;
  - III. comply with and ensure compliance with the policy and general guidance of the Company's business laid down by the Board of Directors, each Executive Officer being responsible for his business units and specific area of activities.
- **Article 23 -** The company shall be represented as plaintiff or defendant in courts of law or otherwise, including as regards the signature of documents constituting responsibility for this, by 2 (two) members of the Executive Board, who may, in accordance with rules laid down by it, nominate proxies to exercise jointly the powers granted.
- **Sole Paragraph -** Summons and judicial or extrajudicial notifications shall be made in the name of the Executive Officer responsible for Investor Relations.
- **Article 24 -** In the case of commitments assumed abroad, the company may be represented by a single member of the Executive Board, or by an attorney-in-fact with specific and limited powers according to the present By-Laws.
- **Sole Paragraph -** The company may, moreover, be represented by a single proxy at the General Meetings of shareholders of the companies in which it participates or for acts arising out of the exercise of powers specified in a power of attorney "ad judicia" or a special power of attorney conceded in accordance with rules laid down by the Board of Directors.
- **Article 25 -** Except when otherwise required by law, proxies shall be appointed by a power of attorney in the form of a private instrument in which the powers granted shall be specified, the term of validity of powers of attorney "ad negotia" being limited to 1 (one) year.



#### **CHAPTER V - AUDIT COMMITTEE**

- **Article 26 -** The Audit Committee, a permanently functioning body, shall be formed of 5 (five) effective members and an equal number of alternates, elected by the General Meeting, which shall fix their remuneration.
- **Article 27 -** The members of the Audit Committee shall carry out their duties until the first Ordinary General Meeting to be held following their election, their re-election being permitted.
- **Article 28 -** In their absence or impediment, or in cases of vacancy of office, the members of the Audit Committee shall be replaced by their respective alternates.
- **Article 29 -** The Audit Committee shall exercise the functions attributed to it by prevailing legislation.

### **CHAPTER VI - COMPANY PERSONNEL**

**Article 30 -** The company shall maintain a social security plan for its employees administered by a foundation established for this purpose, the provisions of prevailing legislation being complied with.

#### CHAPTER VII - FINANCIAL YEAR AND DISTRIBUTION OF PROFITS

- **Article 31 -** The fiscal year of the company shall coincide with the calendar year, thus finishing on December 31<sup>st</sup>, when the balance sheets shall be prepared, with semi-annual balance sheets being prepared on June 30<sup>th</sup> each year.
- Article 32 After the constitution of the legal reserve, the employment of the remaining portion of the net profit verified at the end of each financial year



(which shall coincide with the calendar year) shall, on the motion of the Administration, be submitted to the decision of the General Meeting.

**Sole Paragraph -** The amount of the interest, paid or credited in the form of interest on stockholders' equity in accordance with the prescriptions of Article 9, § 7 of Law no. 9.249 of December 26<sup>th</sup>, 1995 and of relevant legislation and regulations, may be ascribed to the compulsory dividend and to the minimum annual dividend on preferred shares, such amount for all legal purposes forming part of the sum of the dividends distributed by the company.

**Article 33 -** The formation of a Reserve for Depletion, should this be prescribed by prevailing fiscal legislation, shall be taken into account in the proposal for the distribution of dividends.

**Article 34 -** At least 25% (twenty-five per cent) of the net annual profit, adjusted as per the law, shall be devoted to the payment of dividends.

**Article 35 -** At the proposal of the Executive Board , the Board of Directors may determine the preparation of balance sheets in periods of less than six months and declare dividends on account of the profit verified in these balances as well as to declare them for the account of accrued profits or profit reserves existing in the latest annual or semi-annual balance sheet.

**Article 36 -** The dividends and interest on stockholders' equity mentioned in the Sole Paragraph of Article 32 shall be paid at the times and at the places specified by the Executive Board, those not claimed within 3 (three) years after the date of payment reverting in favour of the company.

I hereby declare that the above text is a true copy of the original, recorded in the appropriate book.

Rio de Janeiro, May 20th, 2002

Paulo F. de Almeida Lopes General Counsel

# Exhibit 8

## **SUBSIDIARIES**

Companies	Jurisdiction of	<u>Name</u>
	<b>Organization</b>	
Itabira Rio Doce Company	Cayman Islands	ITACO
Ltd.		
Rio Doe International Finance	Bahamas	RDIF
Ltd.		
Ferteco Mineração S.A.	Brazil	FERTECO
Pará Pigmentos S.A.	Brazil	Para Pigmentos
SIBRA – Eletrosiderúrgica	Brazil	SIBRA
Brasileira S.A.		
Navegação Vale do Rio Doce	Brazil	DOCENAVE
S.A.		
Vale do Rio Doce Alumínio	Brazil	ALUVALE
S.A.		
CELMAR S.A. – Indústria de	Brazil	CELMAR
Celulose e Papel		
Florestas Rio Doce S.A.	Brazil	Florestas Rio Doce
Urucum Minerção S.A.	Brazil	Urucum
Rio Doce Manganèse Europe	France	RDME

# Exhibit 10.1

### CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce for the year ended December 31, 2001 of our report dated March 28, 2002, relating to the consolidated financial statements of Companhia Vale do Rio Doce and its subsidiaries, which appears in such Annual Report. We also consent to the references to us under the headings "Experts" and "Selected Consolidated Financial Data" in such Annual Report.

/s/ PricewaterhouseCoopers

PricewaterhouseCoopers Auditores Independentes

Rio de Janeiro, Brazil June 26, 2002

# Exhibit 10.2

### CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the use in this Annual Report on Form 20-F of Companhía Vale do Rio Doce for the year ended December 31, 2001 of our report dated March 26, 2002, relating to the balance sheet of Vale Overseas Ltd., which appears in such Annual Report. We also consent to the references to us under the headings "Experts" in such Annual Report

/s/ PricewaterhouseCoopers

PricewaterhouseCoopers Auditores Independentes

Rio de Janeiro, Brazil June 26, 2002

# Exhibit 10.3

## Consent of Independent Public Accountants

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Yale do Rio Doce of our report dated January 24, 2002, relating to the Financial Statements of ALBRÁS – Alumínio Brasileiro S.A. for the years ended December 31, 2001, 2000 and 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

# Exhibit 10.4

### Consent of Independent Public Accountants

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 24, 2002, relating to the Financial Statements of ALUNORTE – Alumina do Norte do Brasil S.A. for the years ended December 31, 2001, 2000 and 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

# Exhibit 10.5

## Consent of Independent Public Accountants

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 30, 2002, relating to the Financial Statements of Vale do Rio Doce Alumínio S.A. - ALUVALE for the years ended December 31, 2001, 2000 and 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

# Exhibit 10.6

### Independent auditors' consent

To
The Board of Directors
Bahia Sul Celulose S.A.:

We hereby consent to the use of our report dated February 6, 2001 included herein in this Annual Report on Form 20-F of Companhia Vale do Rio Doce, relating to the consolidated financial statements of Bahia Sul Celulose S.A. for the years ended December 31, 2000 and 1999.

/s/ KPMG Auditors Independentes

São Paulo, Brazil June 27, 2002

#### CONSENT OF INDEPENDENT ACCOUNTANTS

The Board of Directors California Steel Industries, Inc.:

We consent to the use in the Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 21, 2002 relating to the consolidated financial statements (not presented separately herein) of California Steel Industries, Inc. and subsidiary as of December 31, 2001 and 2000 and for each of the years in the three year period ended December 31, 2001.

/s/ KPMG LLP

Orange County, California June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 25, 2002, relating to the Financial Statements of Celulose Nipo-Brasileira S.A. – CENIBRA for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Belo Oriente, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 21, 2000, relating to the Financial Statements of Celulose Nipo-Brasileira S.A. – CENIBRA for the year ended December 31, 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Belo Oriente, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 25, 2002, relating to the Financial Statements of Navegação Vale do Rio Doce S A. – DOCENAVE for the years ended December 31, 2001, 2000 and 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 25, 2002, relating to the Financial Statements of Docepar S.A. for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated February 18, 2000, relating to the Financial Statements of Docepar S.A. for the year ended December 31, 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 18, 2002, relating to the Consolidated Financial Statements of Companhia Coreano-Brasileira de Pelotização – KOBRASCO for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 18, 2002, relating to the Financial Statements of Companhia Nipo-Brasileira de Pelotização – NIBRASCO for the years ended December 31, 2001, 2000 and 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

The Board of Directors Valesul Aluminio S.A.

#### Consent of Independent Accountants

We consent to the use of our audit report dated January 17, 2002, included herein in this Statement on Form 20 – F of Companhia Vale do Rio Doce, relating to the financial statements of Valesul Aluminio S.A. as of December 31, 2000 and 2001 and for the three years period ended December 31, 2001.

/s/ KPMG Auditors Independentes

KPMG Auditores Independentes

Rio de Janeiro, Brazil

June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated June 3, 2002, relating to the consolidated financial statements of Companhia Siderúrgica Nacional as of December 31, 2001 and 2000 and for each of the three years in the period ended December 31, 2001, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU AUDITORES INDEPENDENTES Rio de Janeiro, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 30, 2002, relating to the Financial Statements of Terminal de Vila Velha S.A. for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Vitória, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated February 2, 2001, relating to the Financial Statements of Terminal de Vila Velha S.A. for the years ended December 31, 2000 and 1999, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Victória, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 25, 2002, relating to the Financial Statements of Nova Era Silicon S.A. for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Belo Horizonte, Brazil, June 27, 2002

As Independent Public Accountant, we hereby consent to the use in this Registration Statement on Form 20F of Companhia Vale do Rio Doce of our report dated January 18<sup>th</sup> 2000, except for the subject mentioned on the paragraph 3 that is dated on January 31<sup>st</sup>, 2002, relating to the financial statements of Nova Era Silicon S.A. for the years ended December 31<sup>st</sup>, 1999 and 1998 which is included in such Registration Statement.

Belo Horizonte, Brazil, June 27, 2002

/s/ Luiz Cláudio Fontes

Luiz Claudio Fontes Accountant CRC 1RJ032470/O-9 "T" PR "S" MG Trevisan Auditores Independentes CRC 2SP013439/O-5 "S" MG

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated January 25, 2002, relating to the Financial Statements of CELMAR S.A. – Indústria de Celulose e Papel for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

Deloitte Touche Tohmatsu Rio de Janeiro, Brazil, June 27, 2002

We hereby consent to the use in this Annual Report on Form 20-F of Companhia Vale do Rio Doce of our report dated February 15, 2002, relating to the Consolidated Financial Statements of SIBRA – ELETROSIDERÚRGICA BRASILEIRA S.A. and Subsidiaries for the years ended December 31, 2001 and 2000, which is included in such Annual Report.

/s/ Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU Auditores Independentes Salvador, Brazil, June 27, 2002

June 26, 2002 Phoenix, AZ

Companhia Vale do Rio Doce Avenida Graça Aranha, 26 20005-900 Rio de Janiero, RJ Brasil

Gentlemen,

AMEC Engineering and Construction Services (AMEC) hereby consents to being named in this annual report for the year ended December 31, 2001 on Form 20-F filed by Companhia Vale do Rio Doce (No. 000-26030), in reference to AMEC's review of CVRD reserves as of December 31, 2001.

Very truly yours,

/s/ Larry B. Smith

Larry B. Smith Chief Geologist

To: The U.S. Securities and Exchange Commission ("Commission")

<u>Re:</u> Arthur Andersen LLP ("Arthur Andersen")

Dear Sirs:

Pursuant to the requirements set forth in the Temporary Final Rule and Final Rule "Requirements for Arthur Andersen LLP Auditing Clients" issued by the Commission on March 18, 2002 (17 CFR PARTS 210, 228, 229, 230, 240, 249 and 260; RELEASE NOS. 33-8070, 34-45590; 35-27503; 39-2395; IA-2018; IC-25464; FR-62; File No. S7-03-02 and RIN 3235-AI46), and in view of the audit reports issued by Arthur Andersen to each of Companhia Hispano-Brasileira de Pelotização – Hispanobras ("Hispanobras"), Companhia Italo-Brasileira de Pelotizacao – Itabrasco ("Itabrasco"), and Mineracao Rio do Norte S.A. ("MRN"), by its duly authorized representative, Companhia Vale do Rio Doce hereby declares that it has received copies of the letter dated May 31, 2002 to each of Hispanobras, Itabrasco and MRN, containing certain representations from Arthur Andersen concerning audit quality controls in connection with the audits of the financial statements of each of Hispanobras, Itabrasco and MRN as of and for the year ended December 31, 2001, including representations regarding the continuity of Arthur Andersen personnel working on the audit, the availability of national office consultation, and the availability of personnel at foreign affiliates of Arthur Andersen to conduct relevant portions of the audit.

> Sincerely yours, /s/ Guilherme Rodolfo Laager Guilherme Rodolfo Laager Executive Officer